

**H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7
Targeted Flora Survey
2018**

Prepared for
Main Roads Western Australia



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Main Roads Western Australia



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Abbreviations

Abbreviation	Definition
Astron	Astron Environmental Services
BAM Act	<i>Biosecurity and Agriculture Management Act 2007</i>
BC Act	<i>Biodiversity Conservation Act 2016</i>
cm	Centimetre
DBCA	Department of Biodiversity, Conservation and Attractions
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESA	Environmentally Sensitive Area
GDA	Geocentric Data of Australia
GPS	Global Positioning System
ha	Hectare
IBRA	Interim Biogeographic Regionalisation for Australia
km	Kilometre
mm	Millimetre
MGA	Map Grid of Australia
MNES	Matters of National Environmental Significance
MRWA	Main Roads Western Australia
P	Priority species
PMST	Protected Matters Search Tool
SLK	Straight Line Kilometre
T	Threatened flora species under the <i>Biodiversity Conservation Act 2016</i>
TEC	Threatened Ecological Community
WoNS	Weeds of National Significance

Executive Summary

Main Roads Western Australia (Main Roads) is planning for road upgrade works on South Coast Highway between straight line kilometre (SLK) 46.4 and 65.7 in the area between Cheyne Road (south) and Kojaneerup West Road (north), located approximately 40 km north-east of the City of Albany (herein termed the 'Project'). The Survey Area is 20 kilometres in length and encompasses approximately 62 metres either side of the highway centre line; the total area is 277.5 hectares.

A biological survey covering approximately 275 hectares was previously undertaken for the Project by GHD in spring 2015 (GHD 2016), with a further two small additional areas totalling 2.5 hectares surveyed by Southern Ecology in spring 2017 (Southern Ecology 2018). The previously surveyed areas are all within the current Survey Area.

Astron Environmental Services was engaged by Main Roads to coordinate additional targeted infill survey for conservation significant flora in 2017 and 2018 and to undertake regional extension surveys for conservation significant flora in 2018. The additional survey work was undertaken by Southern Ecology on behalf of Astron.

This report provides a summary of the survey information for conservation significant flora collected for the Project over three survey years (2015, 2017 and 2018).

The combined works and key findings of the targeted flora surveys conducted for the Project include:

SURVEY EFFORT -

- GHD undertook a survey for vegetation, conservation significant flora and fauna habitat (275 hectares) in spring 2015. The area surveyed by GHD is within the current Survey Area.
- Southern Ecology undertook survey for vegetation, conservation significant flora and fauna habitat (of an additional 2.5 hectares) in spring 2017. The area surveyed by Southern Ecology is within the current Survey Area.
- Southern Ecology undertook targeted infill surveys for conservation significant flora within the Survey Area (277.5 hectares, includes both areas mentioned above) over three seasons during spring 2017, summer 2018 and spring 2018. The area surveyed by Southern Ecology is within the current Survey Area.
- Southern Ecology undertook targeted extension surveys in suitable habitat in the vicinity of the Survey Area during spring 2018 to search for the Department of Biodiversity, Conservation and Attractions listed priority flora taxon *Leucopogon* sp. Manypeaks P1. Opportunistic searches for other flora species of conservation significance were also undertaken.

SURVEY RESULTS -

- The combined results of the three surveys indicated that a total of 56 populations comprising 2,500 individuals of 17 DBCA-listed priority flora have been recorded within the Survey Area, being:
 - *Leucopogon* sp. Manypeaks (A.S. George 6488) P1
 - *Petrophile carduacea* P2
 - *Spyridium riparium* P2
 - *Stylidium daphne* P2

- *Stenanthemum sublineare*) P2
 - *Gonocarpus trichostachyus* P3
 - *Latrobea recurva* P3
 - *Leucopogon altissimus* P3
 - *Leucopogon elegans* subsp. *psorophyllus* P3
 - *Sphaerolobium validum* P3
 - *Synaphea incurva* P3
 - *Synaphea preissii* P3
 - *Tetraria* sp. Blackwood River P3
 - *Andersonia* sp. *Jamesii* P4
 - *Drosera fimbriata* P4
 - *Stylidium gloeophyllum* P4
 - *Xanthosia eichleri* P4.
- No threatened species of flora listed under the *Environment Protection and Biodiversity Conservation Act 1999* or the *Biodiversity Conservation Act 2016* were recorded.
 - Of the 17 DBCA listed priority flora taxa recorded in the Survey Area, 11 taxa were also recorded more broadly during the extension surveys.
 - The targeted surveys increased the total known number of *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 within Western Australia from approximately 30 individuals to over 1,094 individuals. *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 is only known to occur within the Survey Area and areas targeted during the extension surveys.
 - In addition to the DBCA listed priority flora taxa listed above, an additional three taxa not recorded within the Survey Area were opportunistically recorded during the extension surveys:
 - *Prostanthera verticillatus* P1
 - *Laxmannia grandiflora* subsp. *stirlingensis* P3
 - *Thysanotus gageoides* P3.
 - Two locally significant populations of *Kunzea montana* were recorded, one from the Survey Area and the other during the extension surveys (outside of the Survey Area). These represent an extension to the previously recorded distribution. This species is not of listed conservation significance, however was previously thought to be restricted to the Stirling Range.
 - The introduced species **Kunzea ambigua* was recorded from the Survey Area, and is considered to be of local concern.

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1 Introduction

1.1 Project Background

Main Roads Western Australia (Main Roads) is planning for road upgrade works on South Coast Highway between straight line kilometre (SLK) 46.4 and 65.7 in the area between Cheyne Road (south) and Kojaneerup West Road (north), located approximately 40 kilometres (km) north-east of the City of Albany (herein termed the 'Project'). The Survey Area is 20 km in length and encompasses approximately 62 metres (m) either side of the highway centre line.

Astron Environmental Services (Astron) was engaged by Main Roads to conduct a targeted flora survey within the Project Area and surrounds. The Survey Area is a narrow corridor that includes the South Coast Highway road reserve (approximately 40 m wide) and a section of Hassell National Park, which extends the entire length of the Project. The Survey Area is 277.5 hectares (ha), of which approximately 17 ha represents the existing South Coast Highway road.

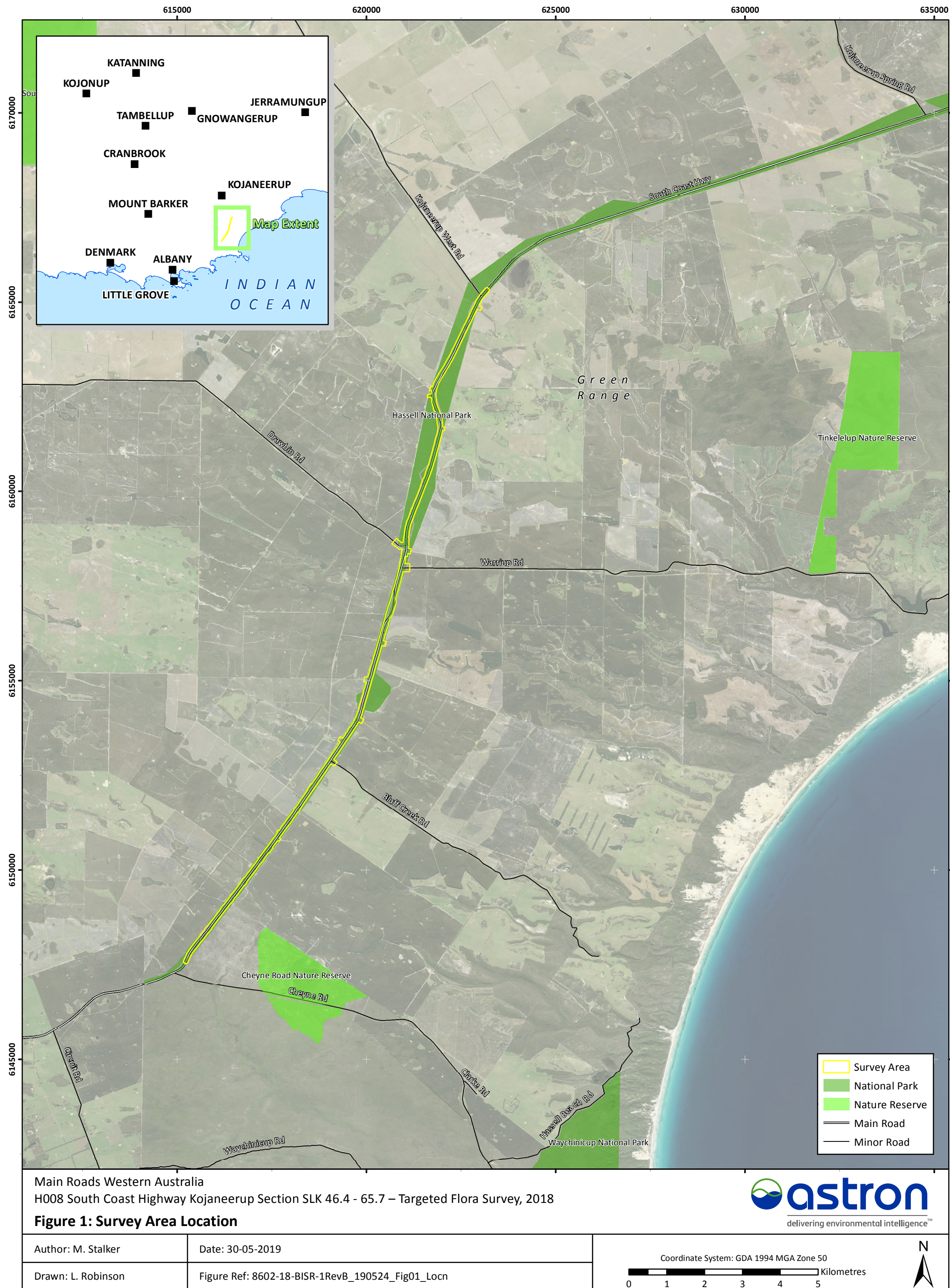
Prior to the current survey, GHD (2016) undertook a biological survey covering 275 ha for the Project during 2015. The GHD (2016) biological survey included a desktop assessment and field survey of the flora, vegetation and fauna values within the Project Area and surrounds. Southern Ecology was engaged in 2017 and 2018 to undertake additional targeted surveys for conservation significant flora taxa, as well as a survey of flora, vegetation and fauna values within two small additional areas (2.5 ha in total).

This report provides a summary of the survey information for conservation significant flora collected for the Project over three survey years (2015, 2017 and 2018).

1.2 Scope of Work

The scope of works was to undertake the following:

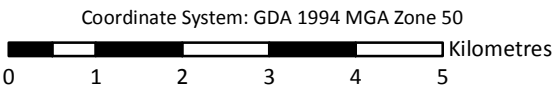
- survey and map the extent of threatened and priority flora populations to determine the number of individuals present within the Survey Area
- targeted survey for *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 within the Survey Area, plus additional targeted searched outside the Survey Area within potential habitat to quantify the extent of this taxon within the vicinity of the Project.



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure 1: Survey Area Location

Author: M. Stalker	Date: 30-05-2019
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_Fig01_Locn



2 Environmental Context

2.1 Physical Environment

2.1.1 Geology

The surface geology of the Survey Area is comprised of five units (Stewart et al. 2008) (Table 1).

Table 1: Geological units of the Survey Area (Stewart et al. 2008).

Label	Description	Area within Survey Area (ha)
Czcp	Siltstone, sandstone	24.3
Czl	Pisolitic, nodular or vuggy ferruginous laterite; some lateritic soils; ferricrete; magnesite; ferruginous and siliceous duricrusts and reworked products, calcrete, kaolinised rock, gossan; residual ferruginous saprolite	110.0
Czs	Sand or gravel plains; quartz sand sheets commonly with ferruginous pisoliths or pebbles, minor clay; local calcrete, laterite, silcrete, silt, clay, alluvium, colluvium, aeolian sand	39.7
Mn	Garnet-biotite-quartz-feldspar augen gneiss, migmatite, quartz-feldspar granofels, metadolerite; granitic gneiss; ultramafic, mafic, and felsic granulites; banded granulite; felsic gneiss, granite, banded gneiss	19.5
Qd	Dunes, sandplain with dunes and swales; may include numerous interdune claypans; residual and aeolian sand with minor silt and clay; aeolian red quartz sand, clay and silt, in places gypsiferous; yellow hummocky sand	84.0

2.1.2 Surface Water and Hydrology

The Survey Area occurs within a number of catchments, specifically within the Wilyun Creek, Cordinup River, Mullocullop Creek, Wongerup Creek, Coastal and Waychinicup River catchment areas (Department of Water 2014).

The Survey Area does not contain, and is not in close proximity to, any wetlands listed as Ramsar sites (Department of Environment and Energy 2019). One DBCA listed Conservation Category wetland (Sunday Swamp; UFI BA21603875) intersects the Survey Area (Department of Biodiversity, Conservation, and Attractions 2017a).

2.2 Biological Environment

2.2.1 Interim Biogeographic Regionalisation of Australia

The Interim Biogeographic Regionalisation for Australia (IBRA version 7) divides the Australian continent into 89 bioregions and 419 subregions (Department of the Environment and Energy 2019). The IBRA regions represent a landscape-based approach to classifying the land surface, including attributes of climate, geomorphology, landform, lithology, and characteristic flora and fauna. The Survey Area occurs in the Esperance Plains and Jarrah Forest bioregions, and at a finer scale falls within the Fitzgerald and Southern Jarrah Forest subregions (Department of the Environment and Energy 2018a). Approximately 80% (220 ha) of the Survey Area occurs within the Esperance Plains bioregion, and approximately 20% (57.5 ha) of the Survey Area occurs within the Jarrah Forest bioregion.

The Fitzgerald subregion is characterised by myrtaceous and proteaceous scrub and mallee heaths on sandplain overlying Eocene sediments, and is rich in endemic species. Vegetation of this subregion is diverse, often cryptic and localised in nature. Typical vegetation communities are broadly described as:

- coastal dune woodlands of *Eucalyptus utilis* and *E. cornuta*
- coastal shrublands and heathlands dominated by *Agonis flexuosa*, *E. angulosa* and *E. notactites*
- mallee shrubland and heath (rich in endemics) dominated by *E. captiosa*, *E. decipiens* subsp. *chalara* and subsp. *adesmophloia*, *E. falcata*, *E. flocktoniae*, *E. lehmannii*, *E. phaenophylla*, *E. pleurocarpa*, *E. sporadica*, *E. tetraptera*, *E. thamnoides* and *E. uncinata*
- mallet and moort woodlands on gravel rises, clay sheets and colluvial slopes and greenstone (rich in endemics) *Eucalyptus astringens* subsp. *redacta*, *E. cernua*, *E. clivicola*, *E. megacornuta*, *E. platypus* subsp. *platypus* and *E. praetermissa* are typical dominants of these woodlands
- yate and york gum (in the Pallinup system) woodlands on alluvials, jarrah/marri woodlands in the west and Goldfields woodland and mallee systems mixing with south coast and Wheatbelt taxa on Greenstone in the east with *E. annulata*, *E. bradycalyx*, *E. cernua*, *E. desmondensis*, *E. gardneri* subsp. *ravensthorpensis*, *E. occidentalis* and *E. oleosa* subsp. *corvina* and *E. salmonophloia*
- more cryptic vegetation communities comprise herbfields and heaths (rich in endemics) on abrupt granite tors and quartzite ranges that rise from the plain and the greenstone heath and shrublands (Comer et al. 2001).

The Southern Jarrah Forest subregion is characterised by jarrah-marri forest on laterite gravels and, in the eastern part, by wandoo-marri woodlands on clayey soils. Eluvial and alluvial deposits support *Agonis* shrublands. In areas of Mesozoic sediments, jarrah forests occur in a mosaic with a variety of species rich shrublands (Hearn et al. 2002).

2.2.2 Conservation Reserves

The majority of the Survey Area (189.7 ha, 69 %) coincides with Hassell National Park, a Class A reserve vested under the Conservation Commission of Western Australia. The Hassell National Park, proclaimed in 1963 and covering an area of approximately 1,200 ha, is a long linear Park of between approximately 200 m to 600 m wide that follows the alignment of the South Coast Highway.

The Cheyne Road Nature Reserve is the nearest other conservation area, being located approximately 1.1 km south-east of the southern end of the Survey Area (Figure A.1, Appendix A).

2.2.3 Pre-European Vegetation

Two broad scale pre-European vegetation associations (Shepherd, Beeston, and Hopkins 2002) are present within the Survey Area:

- East Kalgan 994: Low forest; jarrah & casuarina (probably *Allocasuarina fraseriana*), comprising 60.4 ha (21.8 %) of the Survey Area between SLK 46.3 to 50.5 within the Jarrah Forest IBRA region.
- Riche 980: Shrublands; jarrah mallee-heath, comprising 217.1 ha (78.2 %) of the Survey Area between SLK 50.5 to 65.7 within the Fitzgerald IBRA region.

Mapping of the pre-European vegetation associations in the Survey Area is presented in Figure A.2 (Appendix A).

2.3 State and Commonwealth Conservation Categories and Management

Commonwealth and State regulatory authorities maintain databases of the locations and conservation status of significant flora, fauna and ecological communities in Western Australia.

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides a legal framework to protect and manage Matters of National Environmental Significance (MNES) including listed flora. The listed flora is allocated a conservation category, which are outlined in Tables B.1 and B.2 (Appendix B).

Under Western Australian legislation, all native flora is protected. The *Biodiversity Conservation Act 2016 (BC Act)*^[2] also provides for native flora to be gazetted as Threatened or Extinct. Under the BC Act Threatened species may be listed as one of three categories: Critically Endangered, Endangered or Vulnerable (Table B.2, Appendix B).

In addition, species which are known from only a few collections or locations, but have not been adequately surveyed and therefore cannot be considered for declaration as Threatened flora, are included on a supplementary conservation list managed by DBCA called the *Priority Flora List* (Table B.3, Appendix B). The DBCA-listed Priority flora taxa do not have any statutory protection.

2.4 Introduced Flora Categories and Management

Significant weed species are identified at both the Commonwealth and State levels. The Australian Weeds Strategy (Australian Weeds Committee 2012) identifies Weeds of National Significance (WoNS) which have the potential to impact primary industry and/or environmental and social values. The management of weeds in Western Australia is primarily regulated through the *Biosecurity and Agriculture Management Act 2007* (BAM Act), however there is also provision for the control of environmental pests under the BC Act. Species listed under the BAM Act are allocated one of three declared pest categories which define the required level of management (Department of Primary Industries and Regional Development 2019). Declared pest categories and listed weed species' priority rankings are presented in Table B.4 (Appendix B). Furthermore, under the BC Act, there is allowance for the Minister to declare a plant to be an environmental pest, if a species is not already covered under the BAM Act, and is allowed to issue environmental pest notices for the management of declared environmental pests.

^[2] From 1 January 2019, the *Wildlife Conservation Act 1950* has been replaced by the *Biodiversity Conservation Act 2016* and its regulations. This study was completed in 2018, prior to the BC Act being enacted.

3 Methods

3.1 Desktop Assessment

A desktop assessment was undertaken to identify the previously recorded environmental values within the vicinity of the Survey Area and to inform the field survey personnel of the environmental values that are expected/likely to be encountered.

Environmentally Sensitive Areas (ESAs) may be declared by the Minister for Environment under Section 51B of the *Environmental Protection Act 1986* for important environmental values such as threatened flora, threatened ecological communities (TECs) or significant wetlands. A search for ESAs in the vicinity of the Survey Area was conducted using Western Australian government datasets (Department of Water and Environmental Regulation 2018) and the Register of the National Estate dataset (Department of the Environment and Energy 2008).

DBCA database search results dated September 2018 were provided by Main Roads within a 20 km radius of the Survey Area. Database searches were conducted to identify listed conservation significant flora and ecological communities within, or in close proximity to, the Survey Area. Conservation categories for ecological communities and flora are presented in Appendix B. Search results are presented in Appendix C and search details are summarised in Table 2. Introduced flora species were compared to the Department of Primary Industries and Regional Development list, to determine if any have been listed as declared pests (Department of Primary Industries and Regional Development 2018), and the WoNS list (Australian Weeds Committee 2012). Introduced flora categories are presented in Table B.7 (Appendix B).

Table 2: Database searches undertaken.

Database	Date search results received	Search focus	Search area
<i>NatureMap</i> (Department of Biodiversity, Conservation, and Attractions 2018a)	31/08/2018	Flora of conservation significance	20 km radius from the centre point of the Survey Area, defined by the coordinates: 34°43'50 S, 118°18'53 E
Threatened and Priority Flora Database (TPFL) (Department of Biodiversity, Conservation, and Attractions 2018b)	06/09/2018	Listed threatened and priority flora	20 km radius from the Survey Area boundary
Western Australian Herbarium Database (Department of Biodiversity, Conservation, and Attractions 2018c)	06/09/2018	All flora species	20 km radius from the centre point of the Survey Area, defined by the coordinates: 34°43'50 S, 118°18'53 E
Protected Matters Search Tool (PMST) (Department of the Environment and Energy 2018b)	31/08/2018	MNES – flora and fauna	20 km radius from the centre point of the Survey Area, defined by the coordinates: -34.73029, 118.31483 (MGA50, GDA94)

3.1.1 Literature Review

Two biological assessments previously conducted for Main Roads within the Survey Area were available for review as part of the desktop assessment:

- Biological Survey: Kojaneerup Project South Coast Highway, 46.4 to 65.7 SLK (Southern Ecology 2018)
- South Coast Highway – Kojaneerup Biological Survey (GHD 2016).

Southern Ecology undertook a biological assessment with infill targeted survey of South Coast Highway 46.4 to 65.7 SLK as part of the Kojaneerup Project, in 2017 (Southern Ecology 2018). The vegetation, flora and fauna assessment was conducted over five days in November/December 2017 and three days in February 2018.

GHD conducted a vegetation, flora and fauna assessment of South Coast Highway 46.4-65.7 SLK over 16 days in October 2015 (GHD 2016).

3.1.2 Likelihood of Occurrence Assessment

Prior to conducting the field survey, aerial imagery was interpreted to identify potential habitat types. The conservation significant flora species returned from literature reviews and database searches were also assessed for their spatial accuracy. The key morphological characteristics, flowering times, suitable habitats and the likelihood of occurrence in the Survey Area was assessed for all priority and threatened flora taxa previously recorded within the vicinity of the Survey Area.

Following the survey, the conservation significant flora species identified from the desktop assessment were categorised according to the criteria in Table 3 considering the suitability of habitats observed during the current survey. Suitable habitat was determined from information in herbarium voucher records, published descriptions, distribution records and knowledge from the authors. The post-survey likelihood of occurrence for each species identified in the database searches is presented in Appendix D. The assessment also considered the survey timing and effectiveness of the survey effort.

Table 3: Criteria used to assess the likely presence of conservation significant flora in the Survey Area.

Likelihood of occurrence	Post-survey
Present	Species is recorded within the Survey Area
Likely	Species is relatively wide spread, has been previously recorded a number of times recently within 10 km of the Survey Area and suitable habitat occurs within the Survey Area
Possible	Species previously recorded within 10 km and suitable habitat occurs in the Survey Area
Unlikely	Suitable habitat may occur but the species has a highly restricted distribution, is very rare and only known from a limited number of populations
Highly Unlikely	Suitable habitat for the species does not occur at the Survey Area OR suitable habitat does occur but the species has a highly restricted distribution, is very rare and only known from a limited number of populations OR the Survey Area is outside the species natural distribution.

3.2 Field Survey

The targeted flora field survey was conducted by Senior Ecologist Damien Rathbone of Southern Ecology (BSc (Hons), Flora Permit SL012382, DRF Permit 66-1516, Regulation 4 Permit CE005723), on behalf of Astron. Damien has over 14 years of experience conducting flora surveys. Within the south coast region, Damien has previously undertaken DBCA regional flora surveys (Albany Regional Vegetation Survey, Fitzgerald River National Park Flora Survey and Ravensthorpe Range Flora Survey), Threatened flora surveys and recovery implementation and has 10 scientific publications.

The targeted flora field survey was conducted over 16 days in spring 2018. The survey dates were September 25, October 1, November 22, 26, 27, 29, 30, December 5, 7 within the Survey Area and October 2, 3, 4, 16, 30, 31 and November 2 for the targeted extension surveys.

The timing of the field assessments are considered appropriate for botanical surveys in the bioregion (Esperance Sandplains/Jarrah Forest). Targeted surveys were conducted in the Survey Area and extended into suitable habitat for *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 adjacent to the Survey Area (see section 3.2.3 for further detail).

The survey was undertaken in accordance with the requirements outlined in the Main Roads Biological Survey Consultant Brief, dated 2 July 2018. The Environmental Protection Authority (EPA) *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority 2016) and *Position Statement 3* (Environmental Protection Authority 2002) were also consulted to ensure consistency with recognised botanical survey guidance in Western Australia.

3.2.1 Weather

Daily weather observations recorded from Albany weather station (Bureau of Meteorology station number 9500) were used to describe local rainfall and temperatures in the 12 months preceding the current survey (Figure 2). A total of 696.6 millimetres (mm) of rainfall was received in the 12 months prior to the survey; 227.4 mm below the long term mean of 924 mm (1961 to 2018) (Bureau of Meteorology 2019). Maximum temperatures were close to average during the period. Above mean rainfall in July and August 2018 allowed for suitable seasonal conditions, despite the lower than average rainfall in September and October, leading up to the survey.

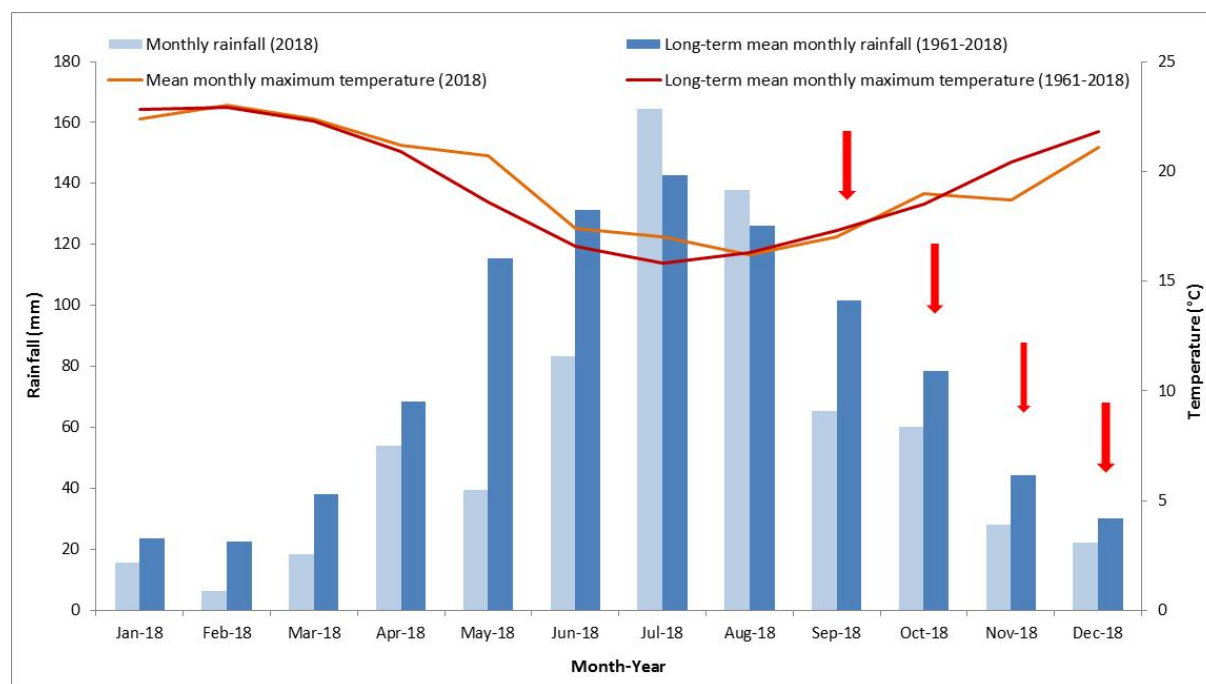


Figure 2: Long-term (1961 to 2018) mean monthly rainfall (mm) and maximum temperatures (°C) and total recorded monthly rainfall (mm) and monthly maximum temperatures (°C) (January 2018 to December 2018) at Albany weather station number 9500 (Bureau of Meteorology 2019). Red arrows indicate current survey timing.

3.2.2 Targeted Threatened and Priority Flora Survey

A targeted survey for threatened flora and priority flora was conducted in suitable habitat throughout the Survey Area. The Survey Area was defined by shapefiles provided by Main Roads to Southern Ecology in September 2017. Potential habitat was identified using desktop soil, landform and remnant vegetation mapping associated with previously recorded populations to determine possible locations to search. Targeted searches were conducted across the area to record the presence of any threatened or priority flora.

Existing priority flora locations had been saved on a handheld GPS and were checked to determine if they were extant. Visiting known locations of priority flora prior to undertaking searches also allowed confirmation of flowering time and characterisation of the habitat. All roads and tracks were walked on foot to search for target species in adjacent vegetation, and targeted traverses were conducted where suitable habitat was likely and access was possible. Vegetation in this area is very dense and the Botanist often needed to crawl through suitable habitat; as such systematic targeted traverses were not possible in all suitable habitat. Track logs indicating survey effort are presented in Appendix E.

3.2.3 Extension Surveys for *Leucopogon* sp. Manypeaks (A.S. George 6488) P1

Targeted extension surveys were conducted in potentially suitable habitat for *Leucopogon* sp. Manypeaks (A.S. George 6488) P1.

Results of the desktop assessment and experience of the Botanist indicate that *Leucopogon* sp. Manypeaks (A.S. George 6488) has a very restricted range and specific habitat requirements. As such, potential habitat for *L.* sp. Manypeaks P1 was surveyed in three zones determined from desktop information to potentially provide suitable habitat:

1. adjacent to the Survey Area within the remnant vegetation of Hassell National Park
2. remnant vegetation on laterite ridges (similar landform) in the vicinity of the known population
3. suitable remnant vegetation on the Chillinup 5 Subsystem (gentle gravelly rises with some areas of deep sand sheet deposits), which is the soil-landscape of the previously known population.

Survey effort for *L. sp. Manypeaks* P1 is shown as tracklogs in Appendix E.

Population census and site information was recorded in accordance with the guidance document '*Threatened & Priority Flora (TPFL) Field Manual*' (Department of Biodiversity, Conservation, and Attractions 2017b). Population size was determined by either direct counts (where possible), or by estimation of plant density using transects or quadrats when populations were too large to count individuals accurately. The locations of all conservation significant flora were recorded with a handheld GPS (Garmin Oregon 7000, ± 5 m accuracy) (MGA zone 50, GDA94). Location information for *Leucopogon sp. Manypeaks* (A.S. George 6488) P1 within the vicinity of the Survey Area was recorded with a differential GPS (Navcom Omnistar Network Rover, ± 0.01 m) to allow for improved accuracy during Project planning. A map of survey effort is presented in Appendix E.

3.3 Limitations

Following completion of the desktop assessment and field surveys, a review was conducted to identify any limitations that may have affected the field survey results. The limitations listed in Table 4 are based on those suggested as considerations in the EPAs *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority 2016).

No avoidable limitations were identified that may have affected the reliability of the results of the field survey. Some small areas (10 ha total) of the Survey Area were burnt during the course of the field assessment and therefore the flora values present could not be surveyed. However, it is understood that these areas were adequately assessed by GHD (2016) before the disturbances occurred.

Table 4: Statement of limitations.

Potential for limitation	Assessment
Availability of contextual information	Regional vegetation mapping and flora records were available to allow for an appropriate level of contextual information prior to the field survey.
Personnel experience	Personnel undertaking the survey have in excess of 10 years' experience in botanical assessments within the bioregion.
Proportion of flora recorded or identification issues	Four putative taxa could not be identified to species level due to infertile collection material; none are considered likely to be threatened or priority flora.
Extent of survey and site access	The area of survey is large and very dense in places. Thirty-three field days were undertaken by two biological consultants over multiple seasons to adequately cover the Survey Area. In addition seven days of targeted searches for <i>L. sp. Manypeaks</i> (A.S. George 6488) P1 were conducted in nearby areas. The number of survey days is considered sufficient to identify and record all threatened or priority flora taxa which may occur.

Potential for limitation	Assessment
Survey timing	The survey timing was over four seasons that are considered appropriate for botanical surveys in this bioregion.
Seasonal conditions	Whilst below average rainfall has occurred for the year to date, this was counteracted by high rainfall preceding the survey in July/August 2018 such that the seasonal conditions were considered appropriate for recording the flora values present.
Disturbances	<p>Two areas within the Survey Area (10 ha total) were burnt during the course of the survey. Although these areas had been visited during the GHD (2016) survey they could not be fully assessed for threatened or priority flora locations during the current survey.</p> <p>Disturbance is therefore considered a limiting factor for approximately 10 ha within the survey area.</p>

4 Results

4.1 Desktop Assessment

4.1.1 Flora and Vegetation

The DBCA Threatened and Priority flora database (2018b), Western Australian Herbarium database (2018c), Naturemap (2018a) and PMST (2018b) identified 87 conservation significant flora species which have previously been recorded within 20 km of the Survey Area (Table D.1, Appendix D). This includes 21 threatened species and 66 DBCA classified priority flora taxa.

Twelve currently DBCA classified priority flora species have been previously recorded in the Survey Area and two have been previously recorded from the areas targeted during the extension surveys (GHD 2016; Southern Ecology 2018).

Nine conservation significant flora were recorded during the Southern Ecology (2018) survey:

- *Stylidium daphne* P2
- *Stenanthemum sublineare* P2
- *Gonocarpus trichostachyus* P3
- *Latrobea recurva* P3
- *Leucopogon altissimus* P3
- *Synaphea incurva* P3
- *Centrolepis caespitosa* P4 (subsequently de-listed)
- *Drosera fimbriata* P4
- *Stylidium gloeophyllum* P4

Twelve conservation significant flora were recorded during the GHD 2016 survey:

- *Leucopogon* sp. Manypeaks (A.S. George 6488) P1
- *Stylidium daphne* P2
- *Stenanthemum sublineare* P2
- *Gonocarpus trichostachyus* P3
- *Latrobea recurva* P3
- *Synaphea incurva* P3
- *Synaphea preissii* P3
- *Tetraria* sp. Blackwood River P3
- *Centrolepis caespitosa* P4 (subsequently de-listed)
- *Drosera fimbriata* P4
- *Stylidium gloeophyllum* P4
- *Xanthosia eichleri* P4.

In addition to the 12 DBCA classified priority flora taxa previously recorded in the Survey Area, suitable habitat was identified for the potential occurrence of an additional two threatened flora and 29 priority flora within the Survey Area (Appendix D). However, there were no major limitations

identified that would have prevented their detection if they were present. Most of these species are relatively conspicuous perennial shrubs that would be unlikely to be overlooked. Eight of these taxa were small inconspicuous herbs or sedges that may have been difficult to detect if in low numbers, however suitable habitat was traversed at appropriate times of the year and none were detected.

Forty-one species are considered unlikely or highly unlikely to occur as the Survey Area is well outside their natural range (i.e. species is endemic to peaks in the Stirling Range) and/or no suitable habitat is present.

4.2 Field Survey

4.2.1 Conservation Significant Flora

A total of 56 populations of 17 priority flora were recorded in the Survey Area during the field survey. The proportions of the total individuals in the Survey Area and extension areas for each species are shown in Table 5.

All locations of priority flora recorded in the previous surveys by GHD {, 2016 #4533} were re-surveyed during the field survey to provide consistency in the recording of locations/counts. The results of this field survey should therefore be considered to replace/update all previous priority flora records outlined in GHD (2016).

One species previously recorded from the Survey Area identified by GHD (2016) and Southern Ecology (2018), being *Centrolepis caespitosa* (previously P4), has since been removed from conservation listing by the DBCA.

The field survey recorded five priority flora not previously recorded in the Survey Area (GHD 2016; Southern Ecology 2018).

The priority flora recorded within the Survey Area are:

- *Leucopogon* sp. Manypeaks (A.S. George 6488) P1
- *Petrophile carduacea* P2
- *Spyridium riparium* P2
- *Stylidium daphne* P2
- *Stenanthemum sublineare* P2
- *Gonocarpus trichostachyus* P3
- *Latrobea recurva* P3
- *Leucopogon altissimus* P3
- *Leucopogon elegans* subsp. *psorophyllus* P3
- *Sphaerolobium validum* P3
- *Synaphea incurva* P3
- *Synaphea preissii* P3
- *Tetraria* sp. Blackwood (A.R. Annels 3043) P3
- *Andersonia* sp. Jamesii (J. Liddelow 84) P4

- *Drosera fimbriata* P4
- *Stylidium gloeophyllum* P4
- *Xanthosia eichleri* P4.

The survey effort is considered adequate to locate any of the two threatened and 29 priority flora considered potential or likely to occur (and not otherwise recorded) in the Survey Area (Table D.1, Appendix D). However, it is noted that eight of the species: *Isopogon uncinatus* T (endangered EPBC Act, endangered BC Act), *Chordifex leucoblepharus* P2, *Chordifex ornatus* P2, *Centrolepis milleri* P3, *Goodenia* sp. South Coast (A.R. Annels ARA1846) P3, *Microtis pulchella* P4, *Rumex drummondii* P4, *Thysanotus glaucus* P4 and *Thysanotus parviflorus* P4 are relatively inconspicuous and may have been difficult to detect should they occur, despite extensive effort. One species, *Opercularia acolytantha* P3, is thought to be extinct and therefore limited information is available on its habitat preference and morphological characteristics to assist in detection.

Three additional priority flora were opportunistically recorded within the extension area only (they were not recorded in the Survey Area), being:

- *Prostanthera verticillatus* P1
- *Laxmannia grandiflora* subsp. *stirlingensis* P3
- *Thysanotus gageoides* P3.

Table 5: Summary of priority flora populations recorded in the Survey Area and extension area. Populations correspond with threatened and priority flora report forms and herbarium voucher collection information (Appendix G). Note: some priority flora populations overlap both the Survey Area and areas surveyed during the extension surveys.

Taxon	Survey Area	Extension surveys	Total (number of populations)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	162	932	1094 (9)
<i>Petrophile carduacea</i> P2	2	-	2 (1)
<i>Spyridium riparium</i> P2	1	200	201 (3)
<i>Stenanthemum sublineare</i> P2	26	25	51 (5)
<i>Stylidium daphne</i> P2	75	23	98 (6)
<i>Gonocarpus trichostachyus</i> P3	362	15	377 (1)
<i>Latrobea recurva</i> P3	13	89	102 (3)
<i>Leucopogon altissimus</i> P3	33	-	33 (2)
<i>Leucopogon elegans</i> subsp. <i>psorophyllus</i> P3	10	1	11 (2)
<i>Sphaerolobium validum</i> P3	7	-	7 (1)
<i>Synaphea incurva</i> P3	225	76	301 (7)
<i>Synaphea preissii</i> P3	32	1	33 (3)
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	136	-	136 (2)
<i>Andersonia</i> sp. Jamesii (J. Liddelow 84) P4	3	-	3 (1)
<i>Drosera fimbriata</i> P4	216	138	354 (4)
<i>Stylidium gloeophyllum</i> P4	1162	60	1222 (3)
<i>Xanthosia eichleri</i> P4	35	-	35 (3)
TOTAL	2500	1560	4060

Locations and abundance details of recorded conservation significant flora species are presented in Appendix F. Threatened and Priority Flora report forms are presented in Appendix G and have been submitted to DBCA.

A description and population summary of all priority flora recorded from the Survey Area is provided below.

***Leucopogon* sp. Manypeaks (A.S. George 6488) P1**

Leucopogon sp. Manypeaks P1 (A.S. George 6488) from the Ericaceae family is an inconspicuous small shrub (typically 5 centimetres (cm) to 10 cm high) with white flowers in late spring and early summer (Plate 1). It was previously only known from a single population of approximately 30 individuals that occurred on a single lateritic ridge in the northern section of the Survey Area. Targeted surveys within the Survey Area and suitable habitat in the vicinity of the Survey Area extended the area of occurrence of the known population and also led to the discovery of eight additional populations (Table 5). As such, there are currently 1,094 individuals of *L. sp. Manypeaks* P1 (A.S. George 6488) known to exist over a range of approximately 11 km. Of these, 162 individuals occur within the Survey Area and 932 individuals occur within area targeted during the extension surveys, within approximately 12 km of the Survey Area (Table 6).

All new occurrences were associated with lower lateritic southern slopes of the Green Range. Typical associated species were *Eucalyptus marginata*, *Hakea cucullata*, *Melaleuca striata*, *Taxandria spathulata* and *Banksia mucronulata* (Plate 3). Survey of potentially suitable habitat on northern

slopes and plains south of the Green Range were unsuccessful in detecting any individuals. Although similar lateritic soils are locally common in the region, the known species distribution is currently restricted to the Green Range and lower foot slopes.

Other potentially suitable habitat for *Leucopogon* sp. Manypeaks (A.S. George 6488) is considered likely to occur within Waychinicup National Park. However, the access to the upland granite and lateritic areas is very limited.

The recorded distribution of *Leucopogon* sp. Manypeaks (A.S. George 6488) is currently restricted to a narrow geographic range and most locations contain <100 individuals (Table 5).



Plate 1 and Plate 2: *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).



Plate 3: Typical habitat of *Leucopogon* sp. Manypeaks (A.S. George 6488) P1.

***Petrophile carduacea* P2**

Petrophile carduacea P2 from the Proteaceae family is a non-lignotuberous shrub to 1.5 m with yellow flowers (Plate 4). The species is known from 16 records over a range of approximately 82 km between Warriup, South Stirling and the Stirling Range (Plate 5). It has been recorded from gravelly soils (Western Australian Herbarium 1998-2019).

In the Survey Area, one population of two individuals was recorded from a dieback-free laterite ridge with Kwongan shrubland in the central portion of the Survey Area close to the road edge (Table 5 and Table 6).



Plate 4 and Plate 5: *Petrophile carduacea* P2 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Spyridium riparium* P2**

Spyridium riparium P2 from the Rhamnaceae family is an erect shrub to 1.5 m with white-cream flowers (Plate 6). The species is known from 43 records over a range of approximately 135 km between the Kent River, Rocky Gully and the Stirling Range (Plate 7). It is found growing in sandy or gravelly soils on riverbanks and slopes (Western Australian Herbarium 1998-2019).

The recorded populations in this survey represent a range extension of this species; it is approximately 30 km from the closest previous record in the Stirling Range National Park. One individual was recorded from the roadside batter in the Survey Area and two large (approximately 100 plants) previously unknown populations were recorded from mallee heath on granite sheets in the Green Range during the extension surveys (Table 5 and Table 6).



Plate 6 and Plate 7: *Spyridium riparium* P2 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Spyridium daphne* P2**

Stylidium daphne P2 from the Stylidiaceae family is a rosetted perennial herb to 0.45 m with yellow flowers (Plate 8). The species is known from 14 records over a range of approximately 65 km between west of Manypeaks and east of Wellstead (Plate 9). It has also been recorded within the Fitzgerald River National Park (Rathbone 2013), which is not currently indicated in the species' distribution mapping. It is found growing in grey-white sand to brown sandy clay over laterite on gentle slopes and in winter wet depressions (Western Australian Herbarium 1998-2019).

A total of six populations were recorded, with most individuals (five populations of 75 individuals, 77% of total) occurring in the Survey Area, and the remaining individuals (one populations of two individuals) being recorded opportunistically outside of the Survey Area during the extension surveys (Table 5 and Table 6). The majority of *S. daphne* P2 were recorded from Kwongan shrublands dominated by *Hakea cucullata* on shallow lateritic soils throughout the Survey Area.



Plate 8 and Plate 9: *Stylidium daphne* P2 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Stenanthemum sublineare* P2**

Stenanthemum sublineare P2 from the Rhamnaceae family is an inconspicuous shrub, to 0.1 m high (Plate 10). The flowers are green, with flowering reported from October to December. The species is known from 20 records over a range of approximately 542 km between Albany, Augusta and west of Dandaragan (approximately 150km north of Perth) (Plate 11). It is found growing in sandy soils in mallee over heath and mixed heath (Western Australian Herbarium 1998-2019).

Most individuals were recorded in the field survey from sandy areas and often on the side of tracks. A total of five populations were recorded with approximately half of the number of individuals (26 plants) occurring in the Survey Area (Table 5 and Table 6).



Plate 10 and Plate 11: *Stenanthemum sublineare* P2 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Gonocarpus trichostachyus* P3**

Gonocarpus trichostachyus P3 from the Haloragaceae family is an erect or spreading herb to 0.17 m with red-purple flowers (Plate 12). The species is known from 10 records over a range of approximately 270 km between Mt Lindsey and to the west of Ravensthorpe (Plate 13). It is found growing in sandy soils in mallee over heath and mixed heath (Western Australian Herbarium 1998-2019).

This species was recorded from one population in the southern section of the Survey Area from Kwongan shrublands and mallee in lateritic soils, with the majority of individuals (362 individuals, 96% of total) occurring in the Survey Area (and the remainder of individuals extending just outside the boundary of the Survey Area) (Table 5 and Table 6).



Plate 12 and Plate 13: *Gonocarpus trichostachyus* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Latrobea recurva* P3**

Latrobea recurva P3 from the Fabaceae family is an erect or procumbent, spreading shrub to 1 m high with yellow pea flowers (Plate 14). The species is known from 24 records over a range of approximately 46 km between Takalarup, the eastern Stirling Range and west of Wellstead (Plate 15). The species is known to occur in grey or white sand over laterite (Western Australian Herbarium 1998-2019).

Three populations were recorded from *Banksia* dominated shrublands in deep sand, with most of the individuals (89 individuals, 87% of total) being recorded outside of the Survey Area during the extension surveys (Table 5 and Table 6).



Plate 14 and Plate 15: *Latrobea recurva* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Leucopogon altissimus* P3**

Leucopogon altissimus P3 from the Ericaceae family is an open shrub to 2 m with white-cream, pendulous flowers (Plate 16). The species is known from 19 records occurring over a range of approximately 45 km between Albany and Waychinicup (Plate 17). It is found growing in sandy soils in woodland and mixed shrubland (Western Australian Herbarium 1998-2019).

A total of 33 individuals were recorded from two populations the Survey Area (Table 5 and Table 6); both occurred on the edge of tracks and roads in lateritic soil.



Plate 16 and Plate 17: *Leucopogon altissimus* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Leucopogon elegans* subsp. *psorophyllus* P3**

Leucopogon elegans subsp. *psorophyllus* P3 from the Ericaceae family is a sparse shrub to 0.4 m with white flowers (Plate 18). The species is known from 15 records occurring over a narrow range of

approximately 35 km between the Green Range and the Pallinup River (Plate 19). It is found growing in sandy to clayey soils in proteaceous and mallee shrublands (Western Australian Herbarium 1998-2019).

Two populations were recorded from *Banksia* dominated shrublands in deep sand, with most individuals (10 individuals, 91% of total) occurring in the Survey Area (Table 5 and Table 6).



Plate 18 and Plate 19: *Leucopogon elegans* subsp. *psorophyllus* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Sphaerolobium validum* P3**

Sphaerolobium validum P3 from the Fabaceae family is an erect shrub to 0.9 m with yellow and red pea flowers (Plate 20). The 21 records of this species are known from a range of approximately 224 km between north of Gnowangerup, Lake Magenta, Jerdacuttup and the Cape Riche area (Plate 21). It is found growing in white-grey sand and red-brown clayey sand with laterite gravel and quartz pebbles in gently undulating areas (Western Australian Herbarium 1998-2019).

One population of seven plants was recorded in lateritic gravel adjacent to Kwongkan shrubland close to the road edge in the Survey Area (Table 5 and Table 6).



Plate 20 and Plate 21: *Sphaerolobium validum* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Synaphea incurva* P3**

Synaphea incurva P3 from the Proteaceae family is a clumped, spreading shrub with yellow flowers (Plate 22). The 26 records of this species are known from a range of approximately 91 km between Denmark and Hassel National Park (Plate 23). It is commonly associated with heath or woodlands with laterite gravel and sand (Western Australian Herbarium 1998-2019). It has recently been downgraded from P1 to P3 by the DBCA due to a recent increase in the number of known, extant populations.

Seven populations were recorded by the field survey, with most individuals (225 individuals, 75% of total) occurring in the Survey Area (Table 5 and Table 6). Most individuals were recorded in heath dominated by *Hakea cucullata* in lateritic gravel.



Plate 22 and Plate 23: *Synaphea incurva* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Synaphea preissii* P3**

Synaphea preissii P3 from the Proteaceae family is an erect low shrub to 0.4 m with yellow flowers (Plate 24). The species is known from 27 records over a range of approximately 160 km between north of Lake Muir, the Stirling Range and Betty's Beach, east of Albany (Plate 25). It is found growing in sandy loam (Western Australian Herbarium 1998-2019). The author has noted that specimens from Stirling Range National Park have smaller stigmas with some aberrant features that differ from southern collections.

Three populations were recorded by the field survey, with most individuals (32 individuals, 97% of total) occurring in the Survey Area (Table 5 and Table 6). The populations were recorded in various vegetation with sand or lateritic gravel, often on the edge of firebreaks.



Plate 24 and Plate 25: *Synaphea preissii* P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Tetraria* sp. Blackwood River (A.R. Annels 3043) P3**

Tetraria sp. Blackwood River (A.R. Annels 3043) P3 from the Cyperaceae family is a medium to tall sedge (Plate 26). The seven records of this species are known from a range of approximately 313 km between Warriup and south of Witchcliffe (Plate 27). This is possibly a widespread species that has been poorly collected due to its indistinct taxonomic features. It is found growing in grey sandy soils often in wet areas (Western Australian Herbarium 1998-2019).

Two populations with a total of approximately 136 individuals were recorded by the field survey from swamps dominated by *Eucalyptus occidentalis* in the Survey Area (Table 5 and Table 6).

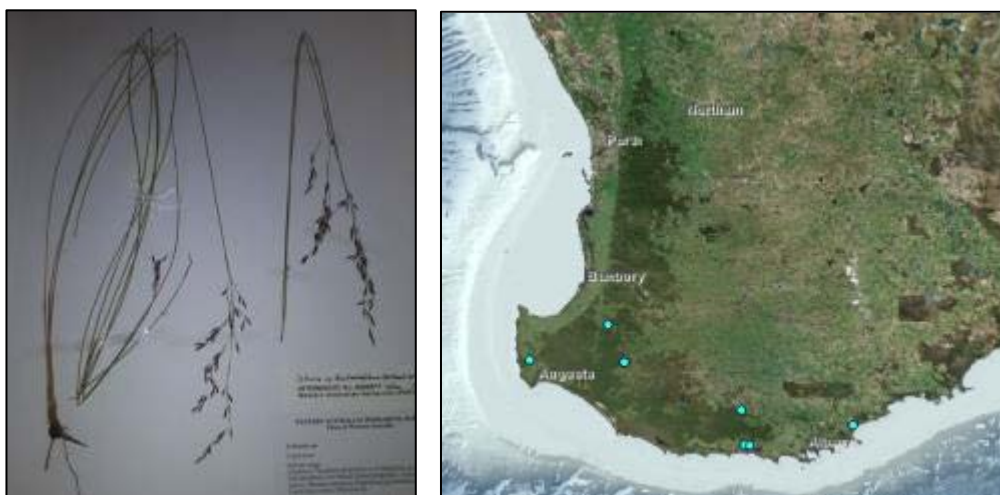


Plate 26 and Plate 27: *Tetraria* sp. Blackwood (A.R. Annels 3043) P3 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Andersonia* sp. Jamesii (J. Liddelw 84) P4**

Andersonia sp. Jamesii (J Liddelw 84) P4 from the Ericaceae family is an erect open shrub to 0.5 m with pink–blue flowers (Plate 28). The 29 records of this species are known from a range of approximately 76 km between Mt Lindsey, Kendenup, Takalarup and Gull Rock (Plate 29). It is found growing on sandy soils with laterite (Western Australian Herbarium 1998-2019).

One population with approximately three individuals was recorded by the field survey in heath dominated by *Hakea cucullata* in laterite soils within the Survey Area (Table 5). This population is the most eastern known extent of this species.



Plate 28 and Plate 29: *Andersonia sp. Jamesii* (J. Liddelow 84) P4 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Drosera fimbriata* P4**

Drosera fimbriata P4 from the Droseraceae family is an erect tuberous, perennial herb to 0.05 m to 0.15 m high (Plate 30). The species has white flowers and is reported to flower from September to October. The species is known from 32 records over a range of approximately 330 km between Cowaramup, Walpole and the Green Range (Plate 31). It is found growing in white sand over granite (Western Australian Herbarium 1998-2019).

Four populations were recorded by the field survey in open *Eucalyptus* woodlands or open heath in sandy soils, with most individuals (216 individuals, 61% of total) occurring in the Survey Area (Table 5 and Table 6).

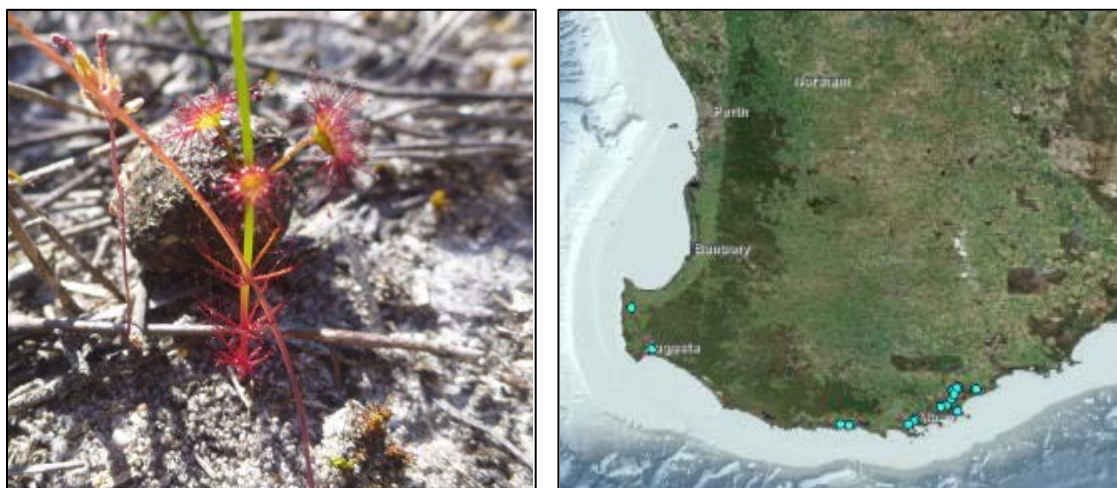


Plate 30 and Plate 31: *Drosera fimbriata* P4 and regional distribution

(Department of Biodiversity, Conservation, and Attractions 2018a).

***Stylidium gloeophyllum* P4**

Stylidium gloeophyllum P4 from the Stylidiaceae family is a rosetted perennial herb to 0.47 m high with orange-yellow flowers (Plate 32). The species is known from 20 records over a range of approximately 300 km between south of Karridale and the Waychinicup area (Plate 33). It has been recorded growing in sandy-clayey soils over granite, in winter wet areas and fringing granite outcrops. Associated vegetation includes peppermint, mallee or *Hakea* shrubland (Western Australian Herbarium 1998-2019).

Three populations were recorded by the field survey, with most individuals (1,162 individuals, 95% of total) occurring in the Survey Area (Table 5 and Table 6). Most individuals were recorded in Kwongan heath dominated by *Hakea cucullata* on shallow lateritic soils in the southern section of the Survey Area.



Plate 32 and Plate 33: *Stylidium gloeophyllum* P4 and regional distribution (Department of Biodiversity, Conservation, and Attractions 2018a).

***Xanthosia eichleri* P4**

Xanthosia eichleri P4 from the Apiaceae family is an erect, procumbent or decumbent shrub to 0.25 m high. The species is characterised by simple leaves and umbels and petals shorter than sepals. It has white-cream flowers with reported flowering from October to November. The species is known from 55 records over a range of approximately 157 km between Shannon National Park and the Green Range (Plate 34). It is found growing in grey sandy loam over granite and commonly associated with granite outcrops and *Eucalyptus marginata*/*C. calophylla* woodlands (Western Australian Herbarium 1998-2019).

Three populations were recorded by the field survey in a variety of vegetation (often recently slashed areas on the side of the road) in the Survey Area with a total of 35 individuals recorded (Table 5 and Table 6).

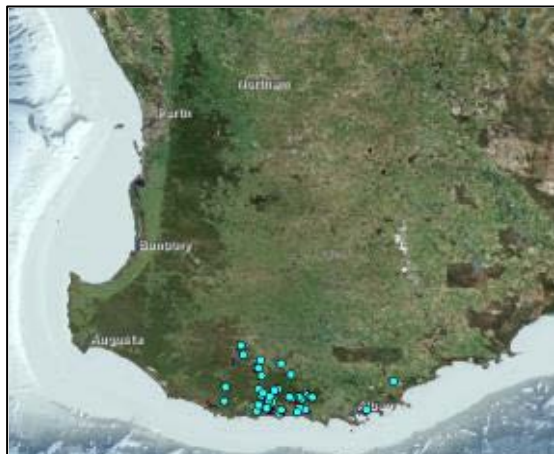


Plate 34: Regional distribution of *Xanthosia eichleri* P4 (Department of Biodiversity, Conservation, and Attractions 2018a).

4.3 Other Flora of Interest

Whilst not being of listed conservation significance, two populations of *Kunzea montana* were recorded during the field survey, including one individual from within the Survey Area (Figure F.6 and F.g, Appendix F). This species was previously thought to be restricted to the Stirling Range (including Sukey Hills).

One weed species, **Kunzea ambigua*, was found from a single location on the side of South Coast Highway within the Survey Area. **Kunzea ambigua* is considered of concern by local government authorities (Figure F.10, Appendix F).

5 Discussion

The Survey Area coincides with part of the Hassell National Park conservation estate that contains high vegetation complexity and a rich floral diversity. Considerable effort has been undertaken over four seasons (between 2015 and 2018) by two botanical consultants to capture baseline information within the Survey Area and adjacent areas. Flora and vegetation assessments have been undertaken over a combined 33 field days within the Survey Area. An additional seven field days have been undertaken to target *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 in suitable habitat, as well as survey opportunistically for other priority flora in suitable habitat in the vicinity of the Survey Area.

Within the Survey Area, 2,500 individuals of 17 priority flora have been recorded. Eleven of these species were also recorded opportunistically in extension surveys in the vicinity of the Survey Area. The other six priority flora recorded are known by the DBCA to occur in other populations within Western Australia. Two species recorded in the Survey Area represent range extensions from the Stirling Range National Park (approximately 30 km).

The current survey significantly increased the known extent of *Leucopogon* sp. Manypeaks (A.S. George 6488) P1, from one population of 30 individuals to nine locations comprising 1,094 individuals. *Leucopogon* sp. Manypeaks (A.S. George 6488) P1 has a restricted range, with a spatial distribution of 11km. The Survey Area contains 162 individuals, which represents 15% of the total known 1,094 individuals. There are large areas of potential habitat within the taxon's current range that are poorly surveyed due to access limitations, therefore further field surveys within this zone would be likely to yield additional individuals. Based on the current survey records, *Leucopogon* sp. Manypeaks (A.S. George 6488) is apparently restricted to the Green Range and lower foot slopes. The Green Range runs east to west, perpendicular to the coastline, over approximately 30 km. The Range is underlain by granite with lateritic lower slopes and siltstone or limestone towards the coast. The western section is largely cleared for agriculture, with the exception of Hassell National Park; the eastern section is largely intact and occurs mainly on private property. One small reserve (Tinkelelup Nature Reserve) occurs within the eastern part of the Range; the habitat within Tinkelelup Nature Reserve does not appear to be suitable for *Leucopogon* sp. Manypeaks (A.S. George 6488). Other potentially suitable habitat for *L. sp. Manypeaks* (A.S. George 6488) P1 is considered to possibly occur within Waychinicup National Park; however, the access to the upland granite and lateritic areas of this National Park is very limited.

Prior to the survey two threatened and 29 priority flora were considered potential or likely to occur, and were not otherwise recorded in the Survey Area. The survey effort was considered adequate to search for these species; potential habitat was accessed and targeted searches conducted at optimal times of the year for detection. However eight of these species: *Isopogon uncinatus* T (endangered EPBC Act, endangered BC Act), *Chordifex leucoblepharus* P2, *Chordifex ornatus* P2, *Centrolepis milleri* P3, *Goodenia* sp. South Coast (A.R. Annels ARA1846) P3, *Microtis pulchella* P4, *Rumex drummondii* P4, *Thysanotus glaucus* P4 and *Thysanotus parviflorus* P4 are small herbs or sedges that may have been difficult to detect should they occur, particularly if they were not flowering at the time of the surveys, and/ or occurred in thick vegetation. One species, *Opercularia acolytantha* P3, is thought to be extinct and therefore limited information is available on its habitat preference and morphological characteristics.

The two populations of *Kunzea montana* recorded are of local interest. *Kunzea montana* was previously thought to be restricted to the Stirling Range. One collection from a gravel pit close to the Survey Area on Cheynes Beach Road collected in 1997 was assumed to be an introduction (Western Australian Herbarium accession number: 05702070). However, the multiple records in this survey indicate it may occur naturally outside of the Stirling Range.

One weed species, **Kunzea ambigua*, was found from a single location on the side of South Coast Highway within the Survey Area and is considered of concern by local government authorities. This species was first officially recorded in Western Australia in 2012 and has subsequently spread rapidly within bushland in the Albany region.

6 References

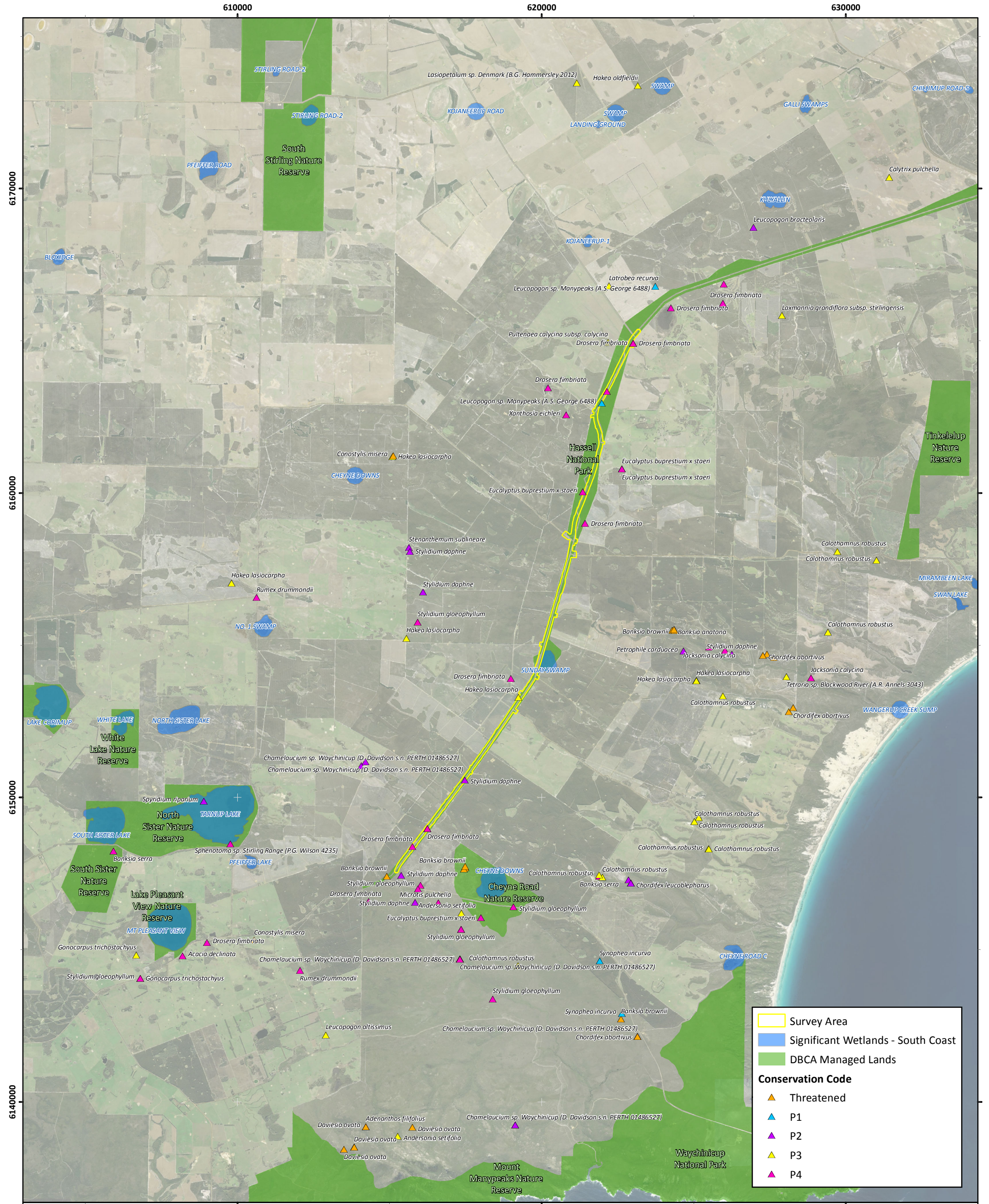
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Appendix A: Environmental Constraints and Regional Mapping

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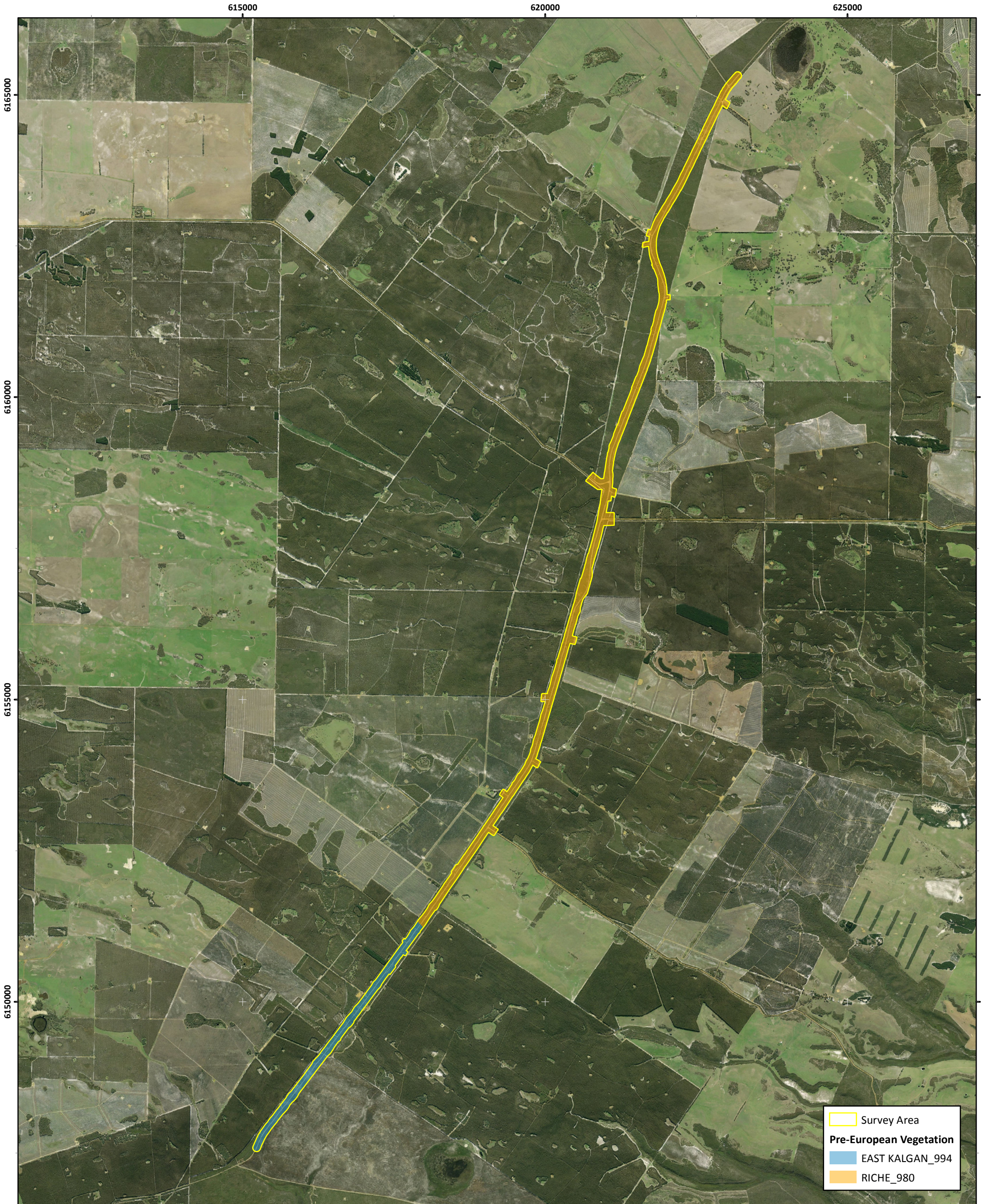


Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure A.1: Environmental Constraints

Author: M. Stalker	Date: 30-05-2019	<div>Coordinate System: GDA 1994 MGA Zone 50</div> <div><div></div><div>0246</div><div>Kilometres</div></div> <div>N</div>
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigA1_EnvCons	



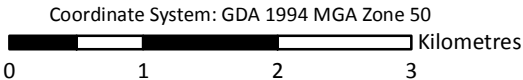


Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure A.2: Pre-European Vegetation of the Survey Area



Author: M. Stalker	Date: 30-05-2019
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigA2_PreEuroVeg



Appendix B: Conservation Categories for Flora and Introduced Flora

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Table B.1: Categories and definitions for threatened flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999*.

Conservation category	Definition
Extinct	Taxa with no reasonable doubt that the last member of the species has died.
Extinct in the wild	Taxa known to survive only in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriated seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
Critically endangered (CR)	Taxa facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered (E)	Taxa are not critically endangered; and are facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable (V)	Taxa are not critically endangered or endangered; and are facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

Table B.2: Conservation codes for gazetted Western Australian flora under the *Biodiversity Conservation Act 2016* (Department of Biodiversity, Conservation, and Attractions 2019).

Code	Conservation category	Definition
Critically endangered (CR)	Schedule 1 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for critically endangered flora.	Taxa “facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines.”
Endangered (EN)	Schedule 2 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for endangered flora.	Taxa “facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines.”
Vulnerable (VU)	Schedule 3 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for vulnerable flora.	Taxa “facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines.”
Extinct (EX)	Schedule 4 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for extinct flora.	“there is no reasonable doubt that the last member of the species has died.”
Extinct in the wild (EW)	Listing in accordance with Ministerial Guidelines (Section 25 of the BC Act)	Species that “is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form”. Currently there are no threatened flora species listed as EW. If listing of a species as EW occurs, then a schedule will be added to the applicable notice.

Note: From 1 January 2019, the *Wildlife Conservation Act 1950* (WC Act) has been replaced by the *Biodiversity Conservation Act 2016* and its regulations. This study was completed in 2018 under the WC Act

Table B.3: Priority species codes for Western Australia flora (Department of Biodiversity, Conservation, and Attractions 2019).

P1: Priority One – Poorly known taxa
Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.
P2: Priority Two – Poorly known taxa
Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.
P3: Priority Three – Poorly known taxa
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.
P4: Priority Four: Rare, near threatened and other taxa in need of monitoring
<p>(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.</p> <p>(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.</p> <p>(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.</p>

The management of introduced flora species in Western Australia is now regulated through the *Biosecurity and Agriculture Management Act 2007* (BAM Act). A list of declared pests, including 'pest' plants is provided under the BAM Act, which has been updated to incorporate a number of other Acts that are administered by the Department of Agriculture and Food Western Australia. Declared pests can fall into two categories: one that relates to the prevention of introducing the species or eradicating it; and the other relates to managing the species and whether it can be kept (i.e. for scientific purposes, education or other purpose).

The threat and risk posed to site-specific biodiversity values, influences to rehabilitation success, primary production, infrastructure assets or human health will differ depending on the unique characteristics of each site and the associated land management practice or operation. Therefore site or project specific weed assessments and priorities should be reviewed for each project.

As per introduced flora species, the BAM Act seeks to establish a modern biosecurity regulatory scheme to prevent serious animal pests from entering the State and becoming established, and to minimise the spread and impact of any that are already present within the State. Declared animal pests fall into three categories as Gazetted under the *Biosecurity and Agriculture Management Regulations 2013*. These categories are outlined in Table B.7.

Table B.4: Declared pests control categories as gazetted under the *Biosecurity and Agriculture Management Regulations 2013*.

Category	Description
C1 (Exclusion)	Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.
C2 (Eradication)	Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.
C3 (Management)	Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.

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Appendix C: Database Search Results

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EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 31/08/18 12:32:15

[Summary](#)

[Details](#)

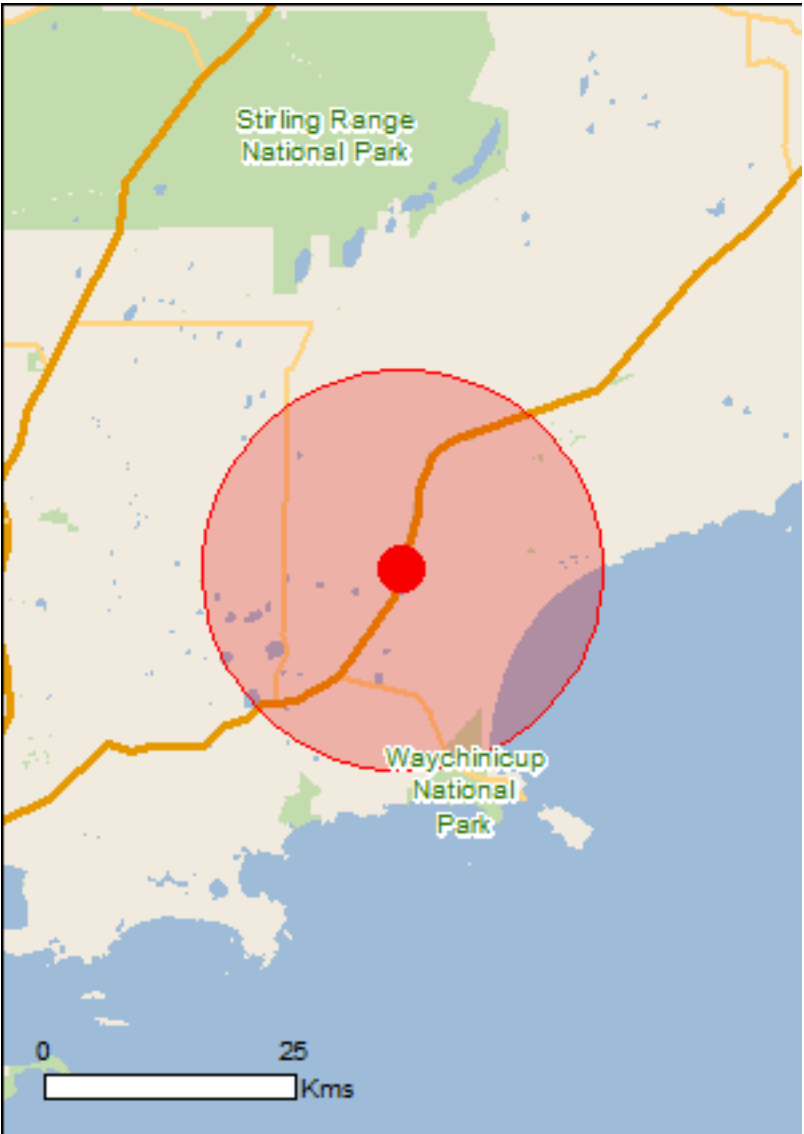
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



This map may contain data which are
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[Coordinates](#)

[Buffer: 20.0Km](#)



Summary

Matters of National Environmental Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	65
Listed Migratory Species:	42

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	65
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	14
Regional Forest Agreements:	None
Invasive Species:	14
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Commonwealth Marine Area

[Resource Information]

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

Name

EEZ and Territorial Sea

Marine Regions

[Resource Information]

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

Name

[South-west](#)

Listed Threatened Ecological Communities

[Resource Information]

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

Name	Status	Type of Presence
Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia	Endangered	Community likely to occur within area

Listed Threatened Species

[Resource Information]

Name	Status	Type of Presence
Birds		
Atrichornis clamosus Noisy Scrub-bird, Tjimiluk [654]	Endangered	Species or species habitat known to occur within area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	Species or species habitat known to occur within area
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat known to occur

Name	Status	Type of Presence
		within area
Dasyornis longirostris Western Bristlebird [515]	Endangered	Species or species habitat known to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat may occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area
Pezoporus flaviventris Western Ground Parrot, Kyloring [84650]	Critically Endangered	Species or species habitat may occur within area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Extinct within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Psophodes nigrogularis nigrogularis Western Heath Western Whipbird [64449]	Endangered	Species or species habitat known to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species

Name	Status	Type of Presence
habitat may occur within area		
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta cauta Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Fish		
Nannatherina balstoni Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat may occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat known to occur within area
Parantechinus apicalis Dibbler [313]	Endangered	Species or species habitat known to occur within area
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Species or species habitat may occur within area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area
Other		
Westrallunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat likely to occur within area
Plants		
Banksia brownii Brown's Banksia, Feather-leaved Banksia [8277]	Endangered	Species or species habitat known to occur within area

Name	Status	Type of Presence
Banksia pseudoplumosa False Plumed-Banksia [82760]	Endangered	Species or species habitat likely to occur within area
Banksia verticillata Granite Banksia, Albany Banksia, River Banksia [8333]	Vulnerable	Species or species habitat likely to occur within area
Caladenia granitora [65292]	Endangered	Species or species habitat known to occur within area
Chordifex abortivus Manypeaks Rush [64868]	Endangered	Species or species habitat known to occur within area
Conostylis misera Grass Conostylis [21320]	Endangered	Species or species habitat known to occur within area
Darwinia oxylepis Gillam's Bell [13188]	Endangered	Species or species habitat may occur within area
Darwinia wittwerorum Wittwer's Mountain Bell [15626]	Endangered	Species or species habitat likely to occur within area
Daviesia obovata Paddle-leaf Daviesia [17311]	Endangered	Species or species habitat may occur within area
Daviesia ovata Broad-leaf Daviesia [21193]	Critically Endangered	Species or species habitat known to occur within area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat may occur within area
Gastrolobium humile [78418]	Endangered	Species or species habitat known to occur within area
Isopogon uncinatus Albany Cone Bush, Hook-leaf Isopogon [20871]	Endangered	Species or species habitat known to occur within area
Kennedia glabrata Northcliffe Kennedia [16452]	Vulnerable	Species or species habitat likely to occur within area
Persoonia micranthera Small-flowered Snottygobble [64939]	Endangered	Species or species habitat may occur within area
Sphenotoma drummondii Mountain Paper-heath [21160]	Endangered	Species or species habitat known to occur within area
Verticordia carinata Stirling Range Featherflower [24342]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur

Name	Status	Type of Presence within area
Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species [Resource Information]		
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Foraging, feeding or related behaviour likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area

Name	Threatened	Type of Presence
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area
Manta alfredi Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat may occur within area
Manta birostris Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land		[Resource Information]
The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.		
Name		
Commonwealth Land -		
Listed Marine Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat may occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area
Catharacta skua Great Skua [59472]		Species or species habitat may occur within area
Chrysococcyx osculans Black-eared Cuckoo [705]		Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Foraging, feeding or related behaviour likely to occur within area
Sterna anaethetus Bridled Tern [814]		Foraging, feeding or related behaviour likely to occur within area
Sterna caspia Caspian Tern [59467]		Foraging, feeding or related behaviour known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Fish

Name	Threatened	Type of Presence
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Species or species habitat known to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species

Name	Status	Type of Presence
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		habitat may occur within area
		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Arpenteur	WA
Cheyne Road	WA
Hassell	WA
Lake Pleasant View	WA
Mount Manypeaks	WA
NTWA Bushland covenant (0010)	WA
North Sister	WA
South Sister	WA
South Stirling	WA
Tinkelelup	WA
Unnamed WA23850	WA
Unnamed WA50574	WA
Waychinicup	WA
White Lake	WA

Invasive Species	[Resource Information]
Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.	

Name	Status	Type of Presence
Birds		
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Mammals		
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur

Name	Status	Type of Presence
		within area
Rattus rattus Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana Broom [67538]		Species or species habitat may occur within area
Lycium ferocissimum African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Pinus radiata Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Ulex europaeus Gorse, Furze [7693]		Species or species habitat likely to occur within area

Nationally Important Wetlands		[Resource Information]
Name		State
Lake Pleasant View System		WA

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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

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

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

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

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

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

Coordinates

-34.73029 118.31483

Acknowledgements

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

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

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

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

NatureMap Species Report

Created By Guest user on 31/08/2018

Kingdom Plantae
Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 118° 18' 53" E, 34° 43' 50" S
Buffer 20km
Group By Family

Family	Species	Records
Acrobolbaceae	1	3
Agapanthaceae	1	2
Aizoaceae	5	5
Amaranthaceae	1	2
Anarthriaceae	8	22
Apiaceae	10	24
Araceae	1	1
Araliaceae	1	1
Asparagaceae	21	41
Aspleniaceae	3	6
Asteraceae	34	49
Boraginaceae	2	2
Boryaceae	1	1
Brassicaceae	1	1
Bryaceae	5	8
Campanulaceae	3	3
Caprifoliaceae	1	1
Caryophyllaceae	3	4
Casuarinaceae	5	9
Celastraceae	4	8
Centrolepidaceae	8	37
Cephalotaceae	1	5
Chenopodiaceae	2	2
Colchicaceae	3	4
Convolvulaceae	3	4
Crassulaceae	3	4
Cymodoceaceae	1	2
Cyperaceae	45	89
Dasyopogonaceae	3	6
Dennstaedtiaceae	2	3
Dicranaceae	4	10
Dilleniaceae	12	41
Ditrichaceae	1	4
Droseraceae	20	63
Elaeocarpaceae	4	17
Elatinaceae	1	2
Ericaceae	63	282
Euphorbiaceae	4	6
Fabaceae	144	525
Funariaceae	1	2
Gentianaceae	3	3
Goodeniaceae	25	89
Gyrostemonaceae	2	3
Haemodoraceae	20	70
Haloragaceae	5	16
Hemerocallidaceae	10	16
Hydrocharitaceae	2	2
Iridaceae	7	9
Isoetaceae	1	1
Juncaceae	6	9
Juncaginaceae	1	1
Lamiaceae	9	26
Lauraceae	3	6
Lentibulariaceae	1	1
Lindsaeaceae	1	1
Loganiaceae	5	22
Lophocoleaceae	1	3
Loranthaceae	1	1
Lycopodiaceae	1	1
Lythraceae	1	1
Malvaceae	17	69
Menyanthaceae	3	9
Montiaceae	1	1
Myrtaceae	134	589
Olacaceae	2	8
Orchidaceae	56	92
Papaveraceae	1	1
Phyllanthaceae	2	3
Phytolaccaceae	1	2
Pittosporaceae	7	18
Plantaginaceae	1	2
Pleurophascaceae	1	3
Poaceae	26	38
Polygalaceae	5	13
Polygonaceae	4	8

Posidoniaceae	4	4
Potamogetonaceae	1	1
Pottiaceae	2	7
Primulaceae	1	2
Proteaceae	139	635
Pteridaceae	1	1
Racopilaceae	1	5
Ranunculaceae	1	2
Restionaceae	32	115
Rhamnaceae	9	48
Rubiaceae	3	6
Rutaceae	21	72
Santalaceae	6	17
Sapindaceae	1	1
Schizaeaceae	1	1
Scrophulariaceae	2	3
Sematophyllaceae	1	9
Solanaceae	3	8
Stylidiaceae	29	106
Thymelaeaceae	15	39
Typhaceae	1	1
Urticaceae	1	1
Violaceae	1	1
Xanthorrhoeaceae	1	2
Xyridaceae	2	2
Zamiaceae	1	1
TOTAL	1082	3528

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Acrobolbaceae				
1.	<i>Lethocolea pansa</i>			
Agapanthaceae				
2.	11700 <i>Agapanthus praecox</i> subsp. <i>praecox</i> (<i>Agapanthus</i>)	Y		
Aizoaceae				
3.	2795 <i>Carpobrotus edulis</i> (<i>Hottentot Fig</i>)	Y		
4.	41201 <i>Cleretum bellidiforme</i>	Y		Y
5.	11681 <i>Disphyma crassifolium</i> subsp. <i>clavellatum</i>			
6.	2820 <i>Tetragonia decumbens</i> (<i>Sea Spinach</i>)	Y		
7.	2823 <i>Tetragonia implexicoma</i> (<i>Bower Spinach</i>)			
Amaranthaceae				
8.	2742 <i>Ptilotus manglesii</i> (<i>Pom Poms</i> , <i>Mulamula</i>)			
Anarthriaceae				
9.	1058 <i>Anarthria gracilis</i>			
10.	1059 <i>Anarthria humilis</i>			
11.	1060 <i>Anarthria laevis</i>			
12.	1061 <i>Anarthria polyphylla</i>			
13.	1062 <i>Anarthria prolifera</i>			
14.	1063 <i>Anarthria scabra</i>			
15.	1097 <i>Lyginia barbata</i>			
16.	18049 <i>Lyginia imberbis</i>			
Apiaceae				
17.	6203 <i>Actinotus glomeratus</i>			
18.	6214 <i>Centella asiatica</i>			
19.	6249 <i>Platysace compressa</i> (<i>Tapeworm Plant</i>)			
20.	6250 <i>Platysace deflexa</i>			
21.	6253 <i>Platysace filiformis</i>			
22.	6263 <i>Schoenolaena juncea</i>			
23.	6285 <i>Xanthosia ciliata</i>			
24.	18453 <i>Xanthosia eichleri</i>		P4	
25.	6289 <i>Xanthosia huegelii</i>			
26.	6292 <i>Xanthosia rotundifolia</i> (<i>Southern Cross</i>)			
Araceae				
27.	1051 <i>Lemna disperma</i> (<i>Duckweed</i>)			
Araliaceae				
28.	6280 <i>Trachymene pilosa</i> (<i>Native Parsnip</i>)			
Asparagaceae				
29.	8779 <i>Asparagus asparagoides</i> (<i>Bridal Creeper</i>)	Y		
30.	1217 <i>Chamaexeros serra</i> (<i>Little Fringe-leaf</i>)			
31.	1301 <i>Laxmannia brachyphylla</i> (<i>Stilted Paper-lily</i>)			
32.	1303 <i>Laxmannia grandiflora</i>			
33.	11510 <i>Laxmannia grandiflora</i> subsp. <i>stirlingensis</i>		P3	
34.	1308 <i>Laxmannia sessiliflora</i> (<i>Nodding Lily</i>)			
35.	11464 <i>Laxmannia sessiliflora</i> subsp. <i>australis</i>			
36.	1227 <i>Lomandra hastilis</i>			
37.	1234 <i>Lomandra nigricans</i>			
38.	1238 <i>Lomandra pauciflora</i>			
39.	1240 <i>Lomandra purpurea</i> (<i>Purple Mat Rush</i>)			
40.	1242 <i>Lomandra rupestris</i>			
41.	1244 <i>Lomandra sonderi</i>			
42.	1312 <i>Sowerbaea laxiflora</i> (<i>Purple Tassels</i>)			
43.	1334 <i>Thysanotus glaucus</i>		P4	
44.	1339 <i>Thysanotus multiflorus</i> (<i>Many-flowered Fringe Lily</i>)			
45.	1342 <i>Thysanotus parviflorus</i>		P4	
46.	1345 <i>Thysanotus pseudojuncea</i>			
47.	<i>Thysanotus</i> sp.			
48.	1351 <i>Thysanotus sparteus</i>			
49.	1357 <i>Thysanotus thyrsoides</i>			
Aspleniaceae				
50.	61 <i>Asplenium aethiopicum</i> (<i>Forked Spleenwort</i>)			
51.	18640 <i>Asplenium obtusatum</i> subsp. <i>northlandicum</i>		P4	
52.	64 <i>Asplenium trichomanes</i> (<i>Maidenhair Spleenwort</i>)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Asteraceae				
53.	7833 <i>Angianthus preissianus</i>			
54.	13327 <i>Argentipallium niveum</i>			
55.	7850 <i>Asteridea nivea</i>			
56.	7908 <i>Carduus nutans</i> (Nodding Thistle)	Y		Y
57.	11900 <i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	Y		
58.	7937 <i>Cirsium vulgare</i> (Spear Thistle, Scotch Thistle)	Y		
59.	20074 <i>Conyza sumatrensis</i>	Y		
60.	7943 <i>Cotula australis</i> (Common Cotula)			
61.	7946 <i>Cotula cotuloides</i> (Smooth Cotula)			
62.	7962 <i>Dittrichia viscosa</i>	Y		
63.	19088 <i>Euchiton collinus</i>			
64.	15137 <i>Euchiton sphaericus</i>			
65.	20247 <i>Gamochaeta calviceps</i>	Y		
66.	12741 <i>Hyalosperma cotula</i>			
67.	8086 <i>Hypochaeris glabra</i> (Smooth Catsear)	Y		
68.	8092 <i>Ixiolaena viscosa</i> (Sticky Ixiolaena)			
69.	14344 <i>Millotia tenuifolia</i> var. <i>tenuifolia</i> (Soft Millotia)			
70.	8130 <i>Olearia cassinia</i>			
71.	44401 <i>Olearia</i> sp. <i>Eremicola</i> (Diels & Pritzel s.n. PERTH 00449628)			
72.	8165 <i>Pithocarpa pulchella</i> (Beautiful Pithocarpa)			
73.	18352 <i>Pithocarpa pulchella</i> var. <i>melanostigma</i>			
74.	8177 <i>Podolepis lessonii</i>			
75.	8189 <i>Pseudognaphalium luteoalbum</i> (Jersey Cudweed)			
76.	8195 <i>Quinetia urvillei</i>			
77.	13300 <i>Rhodanthe citrina</i>			
78.	8206 <i>Senecio glomeratus</i> (Cluster-headed Fireweed)			
79.	20663 <i>Senecio multicaulis</i> subsp. <i>multicaulis</i>			
80.	8217 <i>Senecio quadridentatus</i>			
81.	8218 <i>Senecio ramosissimus</i> (Auricled Groundsel)			
82.	8225 <i>Siloxerus humifusus</i> (Procumbent Siloxerus)			
83.	8230 <i>Sonchus asper</i> (Rough Sowthistle)	Y		
84.	8231 <i>Sonchus oleraceus</i> (Common Sowthistle)	Y		
85.	13328 <i>Waitzia nitida</i>			
86.	44861 <i>Xerochrysum macranthum</i>			
Boraginaceae				
87.	6674 <i>Borago officinalis</i> (Borage)	Y		
88.	6687 <i>Halgania cyanea</i> (Rough Halgania)			
Boryaceae				
89.	1271 <i>Borya nitida</i> (Pincushions)			
Brassicaceae				
90.	3037 <i>Lepidium phlebopetalum</i> (Veined Peppergrass)			
Bryaceae				
91.	32380 <i>Gemmabryum pachythecum</i>			
92.	32424 <i>Rosulabryum albolimbatum</i>			
93.	44608 <i>Rosulabryum billardieri</i>			
94.	32426 <i>Rosulabryum campylotheicum</i>			
95.	32429 <i>Rosulabryum torquescens</i>			
Campanulaceae				
96.	7396 <i>Isotoma hypocrateriformis</i> (Woodbridge Poison)			
97.	9289 <i>Lobelia anceps</i> (Angled Lobelia)			
98.	7402 <i>Lobelia gibbosa</i> (Tall Lobelia)			
Caprifoliaceae				
99.	7365 <i>Lonicera japonica</i> (Japanese Honeysuckle)	Y		
Caryophyllaceae				
100.	2891 <i>Corrigiola litoralis</i> (Strapwort)	Y		
101.	2905 <i>Polycarpon tetraphyllum</i> (Fourleaf Allseed)	Y		
102.	2906 <i>Sagina apetala</i> (Annual Pearlwort)	Y		
Casuarinaceae				
103.	1728 <i>Allocasuarina fraseriana</i> (Sheoak, Kondii)			
104.	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
105.	1734 <i>Allocasuarina microstachya</i>			
106.	1739 <i>Allocasuarina thuyoides</i> (Horned Sheoak)			
107.	1740 <i>Allocasuarina trichodon</i>			
Celastraceae				
108.	9069 <i>Stackhousia huegelii</i>			

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109.	4733	<i>Stackhousia monogyna</i>			
110.	9070	<i>Stackhousia pubescens</i> (Downy Stackhousia)			
111.	4737	<i>Tripterococcus brunonis</i> (Winged Stackhousia)			
Centrolepidaceae					
112.	1117	<i>Aphelia cyperoides</i>			
113.	1121	<i>Centrolepis aristata</i> (Pointed Centrolepis)			
114.	1123	<i>Centrolepis caespitosa</i>		P4	
115.	1129	<i>Centrolepis glabra</i> (Smooth Centrolepis)			
116.	1130	<i>Centrolepis humillima</i> (Dwarf Centrolepis)			
117.	45093	<i>Centrolepis milleri</i>		P3	
118.	1134	<i>Centrolepis polygyna</i> (Wiry Centrolepis)			
119.	13125	<i>Centrolepis strigosa</i> subsp. <i>strigosa</i>			
Cephalotaceae					
120.	3148	<i>Cephalotus follicularis</i> (Albany Pitcher Plant)			
Chenopodiaceae					
121.	2494	<i>Chenopodium murale</i> (Nettle-leaf Goosefoot)	Y		
122.	31493	<i>Tecticornia uniflora</i> (Mat Samphire)		P4	
Colchicaceae					
123.	12770	<i>Burchardia congesta</i>			
124.	1385	<i>Burchardia multiflora</i> (Dwarf Burchardia)			
125.	1389	<i>Wurmbea cernua</i>			
Convolvulaceae					
126.	19880	<i>Convolvulus angustissimus</i>			
127.	6662	<i>Cuscuta australis</i> (Australian Dodder)			
128.	6616	<i>Dichondra repens</i> (Kidney Weed)			
Crassulaceae					
129.	3142	<i>Crassula natans</i>	Y		
130.	15706	<i>Crassula natans</i> var. <i>minus</i>	Y		
131.	3144	<i>Crassula peduncularis</i> (Purple Stonecrop)			
Cymodoceaceae					
132.	126	<i>Amphibolis antarctica</i> (Sea Nymph)			
Cyperaceae					
133.	740	<i>Baumea arthropphylla</i>			
134.	741	<i>Baumea articulata</i> (Jointed Rush)			
135.	745	<i>Baumea preissii</i>			
136.	747	<i>Baumea rubiginosa</i>			
137.	763	<i>Chorizandra enodis</i> (Black Bristlerush)			
138.	768	<i>Cyathochaeta avenacea</i>			
139.	815	<i>Cyperus tenellus</i> (Tiny Flatsedge)	Y		
140.	822	<i>Eleocharis acuta</i> (Common Spikerush)			
141.	20216	<i>Ficinia nodosa</i> (Knotted Club Rush)			
142.	899	<i>Gahnia ancistrophyllo</i> (Hooked-leaf Saw Sedge)			
143.	907	<i>Gahnia trifida</i> (Coast Saw-sedge)			
144.	911	<i>Isolepis congrua</i>			
145.	14540	<i>Isolepis hystrix</i>	Y		
146.	916	<i>Isolepis inundata</i> (Swamp Club Rush)			
147.	917	<i>Isolepis marginata</i> (Coarse Club-rush)			
148.	10831	<i>Isolepis prolifera</i> (Budding Club-rush)	Y		
149.	925	<i>Lepidosperma angustatum</i>			
150.	931	<i>Lepidosperma drummondii</i>			
151.	932	<i>Lepidosperma effusum</i> (Spreading Sword-sedge)			
152.		<i>Lepidosperma</i> sp.			
153.	29143	<i>Lepidosperma</i> sp. <i>Manypeaks large</i> (R.L. Barrett RLB 2476)			
154.	945	<i>Lepidosperma squamatum</i>			
155.	946	<i>Lepidosperma striatum</i>			
156.	11473	<i>Mesomelaena stygia</i> subsp. <i>stygia</i>			
157.	957	<i>Mesomelaena tetragona</i> (Semaphore Sedge)			
158.	978	<i>Schoenus brevisetis</i>			
159.	979	<i>Schoenus caespititius</i>			
160.	984	<i>Schoenus curvifolius</i>			
161.	992	<i>Schoenus grandiflorus</i> (Large Flowered Bogrush)			
162.	996	<i>Schoenus laevigatus</i>			
163.	1002	<i>Schoenus nanus</i> (Tiny Bog Rush)			
164.	1005	<i>Schoenus obtusifolius</i>			
165.	1009	<i>Schoenus pleiostemoneus</i>			
166.	1014	<i>Schoenus sesquipedulus</i>			

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167.	16268	<i>Schoenus</i> sp. <i>Cape Riche Cushion</i> (G.J. Keighery 9922)			
168.	1016	<i>Schoenus subbarbatus</i> (Bearded Bog-rush)			
169.	1018	<i>Schoenus subfascicularis</i>			
170.	1020	<i>Schoenus sublateralis</i>			
171.	1022	<i>Schoenus submicrostachyus</i>			
172.	1025	<i>Schoenus trachycarpus</i> (Rough Fruited Bog-rush)			
173.	1036	<i>Tetraria octandra</i>			
174.	35578	<i>Tetraria</i> sp. <i>Blackwood River</i> (A.R. Annels 3043)		P3	
175.	35579	<i>Tetraria</i> sp. <i>Jarrah Forest</i> (R. Davis 7391)			
176.	43402	<i>Tricostularia</i> sp. <i>Wellstead</i> (R. Davis 302)			
177.	20428	<i>Tricostularia</i> sp. <i>south coast</i> (R.T. Wills 1423)			

Dasypogonaceae

178.	19313	<i>Calectasia obtusa</i>		P3	
179.	1218	<i>Dasypogon bromeliifolius</i> (Pineapple Bush)			
180.	1221	<i>Kingia australis</i> (Kingia, Pulonok)			

Dennstaedtiaceae

181.	13758	<i>Histiopteris incisa</i>			
182.	11062	<i>Hypolepis rugosula</i>	Y		

Dicranaceae

183.	32334	<i>Campylopus australis</i>			
184.	32461	<i>Campylopus bicolor</i> var. <i>bicolor</i>			
185.	32338	<i>Campylopus introflexus</i>	Y		
186.	32344	<i>Dicranoloma diaphanoneuron</i>			

Dilleniaceae

187.	5108	<i>Hibbertia acerosa</i> (Needle Leaved Guinea Flower)			
188.	5117	<i>Hibbertia cuneiformis</i> (Cutleaf Hibbertia)			
189.	5118	<i>Hibbertia cunninghamii</i>			
190.	5126	<i>Hibbertia furfuracea</i>			
191.	5131	<i>Hibbertia gracilipes</i>			
192.	20059	<i>Hibbertia hemignosta</i>			
193.	5137	<i>Hibbertia inconspicua</i>			
194.	5143	<i>Hibbertia lineata</i>			
195.	5144	<i>Hibbertia microphylla</i>			
196.	20033	<i>Hibbertia pulchra</i> var. <i>acutibractea</i>			
197.	20031	<i>Hibbertia pulchra</i> var. <i>crassinervia</i>			
198.	5162	<i>Hibbertia racemosa</i> (Stalked Guinea Flower)			

Ditrichaceae

199.	32462	<i>Ceratodon purpureus</i> subsp. <i>convolutus</i>			
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Droseraceae

200.	15709	<i>Drosera androsacea</i> (Cone Sundew)			
201.	3094	<i>Drosera dichrosepala</i> (Rusty Sundew)			
202.	13218	<i>Drosera erythrogyna</i>			
203.	3096	<i>Drosera fimbriata</i> (Manypeaks Sundew)		P4	
204.	3098	<i>Drosera glanduligera</i> (Pimpernel Sundew)			
205.	3102	<i>Drosera huegelii</i> (Bold Sundew)			
206.	14298	<i>Drosera macrantha</i> subsp. <i>macrantha</i>			
207.	3109	<i>Drosera menziesii</i> (Pink Rainbow)			
208.	3110	<i>Drosera microphylla</i> (Golden Rainbow)			
209.	3111	<i>Drosera modesta</i> (Modest Rainbow)			
210.	11768	<i>Drosera neesii</i> subsp. <i>neesii</i>			
211.	3117	<i>Drosera paleacea</i> (Dwarf Sundew)			
212.	3118	<i>Drosera pallida</i> (Pale Rainbow)			
213.	3122	<i>Drosera platypoda</i> (Fan-leaved Sundew)			
214.	3124	<i>Drosera pulchella</i> (Pretty Sundew)			
215.	3125	<i>Drosera pycnoblata</i> (Pearly Sundew)			
216.	3128	<i>Drosera ramellosa</i> (Branched Sundew)			
217.	3130	<i>Drosera scorpioides</i> (Shaggy Sundew)			
218.		<i>Drosera</i> sp.			
219.	48708	<i>Drosera trichocaulis</i>			

Elaeocarpaceae

220.	4524	<i>Platytheca galioides</i>			
221.	4541	<i>Tetratheca pubescens</i>			
222.	4544	<i>Tetratheca setigera</i>			
223.	4548	<i>Tremandra stelligera</i>			

Elatinaceae

224.	5187	<i>Elatine gratioloides</i> (Waterwort)			
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Ericaceae				
225.	31635 <i>Acrotriche parviflora</i>			
226.	6299 <i>Acrotriche ramiflora</i>			
227.	6306 <i>Andersonia caerulea</i> (Foxtails)			
228.	25844 <i>Andersonia caerulea</i> subsp. <i>caerulea</i>			
229.	19623 <i>Andersonia depressa</i>			
230.	6310 <i>Andersonia grandiflora</i> (Red <i>Andersonia</i>)		P4	
231.	6318 <i>Andersonia parvifolia</i>			
232.	17586 <i>Andersonia pinaster</i>		T	
233.	6319 <i>Andersonia setifolia</i>		P3	
234.	6320 <i>Andersonia simplex</i> (Spiked <i>Andersonia</i>)			
235.	6321 <i>Andersonia sprengeloides</i>			
236.	6326 <i>Astroloma epacridis</i>			
237.	6334 <i>Astroloma pallidum</i> (Kick Bush)			
238.	6335 <i>Astroloma prostratum</i> (Cranberry Heath)			
239.	6338 <i>Astroloma tectum</i>			
240.	46733 <i>Brachyloma baxteri</i>			
241.	6343 <i>Coleanthera myrtoides</i>			
242.	6352 <i>Cosmelia rubra</i> (Spindle Heath)			
243.	40865 <i>Dielsiodoxa lycopodioides</i>			
244.	33379 <i>Leucopogon altissimus</i>		P3	
245.	6358 <i>Leucopogon assimilis</i>			
246.	6360 <i>Leucopogon australis</i> (Spiked Beard-heath)			
247.	6363 <i>Leucopogon bracteolaris</i>		P2	
248.	6368 <i>Leucopogon carinatus</i>			
249.	6373 <i>Leucopogon concinnus</i>			
250.	6378 <i>Leucopogon corynocarpus</i>			
251.	6385 <i>Leucopogon denticulatus</i>			
252.	6387 <i>Leucopogon distans</i>			
253.	35500 <i>Leucopogon elegans</i> subsp. <i>elegans</i>			
254.	6394 <i>Leucopogon gibbosus</i>			
255.	6396 <i>Leucopogon glabellus</i>			
256.	40940 <i>Leucopogon obovatus</i> subsp. <i>obovatus</i>			
257.	40941 <i>Leucopogon obovatus</i> subsp. <i>revolutus</i>			
258.	6419 <i>Leucopogon obtusatus</i>			
259.	6423 <i>Leucopogon oppositifolius</i>			
260.	6425 <i>Leucopogon oxycedrus</i>			
261.	6427 <i>Leucopogon parviflorus</i> (Coast Beard-heath)			
262.	6428 <i>Leucopogon pendulus</i>			
263.	29611 <i>Leucopogon penicillatus</i>			
264.	6436 <i>Leucopogon propinquus</i>			
265.	6441 <i>Leucopogon reflexus</i> (Heart-leaf Beard-heath)			
266.	10755 <i>Leucopogon rubricaulis</i>			
267.	14637 <i>Leucopogon</i> sp. <i>Coujinup</i> (M.A. Burgman 1085)			
268.	36058 <i>Leucopogon</i> sp. <i>Manypeaks</i> (A.S. George 6488)		P1	Y
269.	34718 <i>Leucopogon</i> sp. <i>Southern Forests</i> (B.G. Hammersley 1000)			
270.	19516 <i>Leucopogon</i> sp. <i>Twertup</i> (K.R. Newbey 10859)			
271.	19202 <i>Leucopogon</i> sp. <i>Walpole</i> (R.J. Cranfield 10940)			
272.	6449 <i>Leucopogon tamariscinus</i>			
273.	6454 <i>Leucopogon verticillatus</i> (Tassel Flower)			
274.	6455 <i>Leucopogon woodsii</i> (Nodding Beard-heath)			
275.	6456 <i>Lysinema ciliatum</i> (Curry Flower)			
276.	6457 <i>Lysinema conspicuum</i>			
277.	6459 <i>Lysinema fimbriatum</i>			
278.	6460 <i>Lysinema lasianthum</i>		P4	
279.	34736 <i>Lysinema pentapetalum</i>			
280.	6464 <i>Needhamiella pumilio</i>			
281.	6465 <i>Oligarrhena micrantha</i>			
282.	31931 <i>Sphenotoma capitata</i>			
283.	6467 <i>Sphenotoma dracophylloides</i>			
284.	6468 <i>Sphenotoma drummondii</i> (Mountain Paper-heath)		T	
285.	31952 <i>Sphenotoma gracilis</i> (Swamp Paper-heath)			
286.	17713 <i>Sphenotoma</i> sp. <i>Stirling Range</i> (P.G. Wilson 4235)		P4	
287.	6476 <i>Styphelia tenuiflora</i> (Common Pinheath)			
Euphorbiaceae				
288.	4585 <i>Amperea ericoides</i>			
289.	4636 <i>Euphorbia paralias</i> (Sea Spurge)	Y		
290.	4638 <i>Euphorbia peplus</i> (Petty Spurge)	Y		
291.	4695 <i>Ricinocarpos glaucus</i>			

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Fabaceae				
292.	14608 <i>Acacia aemula</i> subsp. <i>aemula</i>			
293.	16108 <i>Acacia aemula</i> subsp. <i>muricata</i>			
294.	15466 <i>Acacia applanata</i>			
295.	3235 <i>Acacia baxteri</i> (Baxter's Wattle)			
296.	3238 <i>Acacia bidentata</i>			
297.	3239 <i>Acacia biflora</i>			
298.	11731 <i>Acacia browniana</i> var. <i>browniana</i>			
299.	11915 <i>Acacia browniana</i> var. <i>intermedia</i>			
300.	3257 <i>Acacia chrysocephala</i>			
301.	3262 <i>Acacia cochlearis</i> (Rigid Wattle)			
302.	3277 <i>Acacia crispula</i>			
303.	12255 <i>Acacia declinata</i>		P4	
304.	3289 <i>Acacia delphina</i>			
305.	3294 <i>Acacia dentifera</i>			
306.	3311 <i>Acacia drummondii</i> (Drummond's Wattle)			
307.	11303 <i>Acacia drummondii</i> subsp. <i>candolleana</i>			
308.	11192 <i>Acacia drummondii</i> subsp. <i>elegans</i>			
309.	3335 <i>Acacia ferocior</i>			
310.	3353 <i>Acacia gonophylla</i>			
311.	3362 <i>Acacia harveyi</i>			
312.	15475 <i>Acacia heteroclita</i> subsp. <i>heteroclita</i>			
313.	3413 <i>Acacia leioderma</i>			
314.	11448 <i>Acacia leptospermoides</i> subsp. <i>leptospermoides</i>			
315.	17861 <i>Acacia longifolia</i>	Y		
316.	17464 <i>Acacia longifolia</i> subsp. <i>longifolia</i>	Y		
317.	3428 <i>Acacia luteola</i>			
318.	3436 <i>Acacia maxwellii</i>			
319.	3453 <i>Acacia myrtifolia</i>			
320.	3502 <i>Acacia pulchella</i> (Prickly Moses)			
321.	15482 <i>Acacia pulchella</i> var. <i>goadbyi</i>			
322.	3523 <i>Acacia robiniae</i>			
323.	<i>Acacia</i> sp.			
324.	3564 <i>Acacia subcaerulea</i>			
325.	13505 <i>Acacia sulcata</i> var. <i>planoconvexa</i>			
326.	13504 <i>Acacia sulcata</i> var. <i>sulcata</i>			
327.	3575 <i>Acacia tetanophylla</i>			
328.	3582 <i>Acacia triptycha</i>			
329.	3591 <i>Acacia urophylla</i>			
330.	15715 <i>Acacia varia</i> var. <i>parviflora</i>			
331.	15487 <i>Acacia varia</i> var. <i>varia</i>			
332.	3689 <i>Aotus intermedia</i>			
333.	3707 <i>Bossiaea dentata</i>			
334.	3710 <i>Bossiaea eriocarpa</i> (Common Brown Pea)			
335.	3713 <i>Bossiaea linophylla</i>			
336.	3714 <i>Bossiaea ornata</i> (Broad Leaved Brown Pea)			
337.	14291 <i>Bossiaea praetermissa</i>			
338.	3716 <i>Bossiaea preissii</i>			
339.	10861 <i>Callistachys lanceolata</i> (Wonnich)			
340.	14724 <i>Callistachys</i> sp. south-coast variant (M. Carter 180)			
341.	18156 <i>Chamaecytisus palmensis</i> (Tagasaste)	Y		
342.	3751 <i>Chorizema aciculare</i> (Needle-leaved Chorizema)			
343.	13113 <i>Chorizema carinatum</i>		P3	
344.	3752 <i>Chorizema cytisoides</i>			
345.	3757 <i>Chorizema glycinifolium</i>			
346.	12765 <i>Chorizema nanum</i>			
347.	3760 <i>Chorizema reticulatum</i> (Showy Flame Pea)			
348.	3761 <i>Chorizema rhombeum</i>			
349.	3763 <i>Chorizema uncinatum</i>			
350.	3791 <i>Daviesia alternifolia</i>			
351.	19747 <i>Daviesia decurrens</i> subsp. <i>decurrens</i>			
352.	16580 <i>Daviesia emarginata</i>			
353.	3811 <i>Daviesia flexuosa</i>			
354.	3812 <i>Daviesia gracilis</i>			
355.	3815 <i>Daviesia horrida</i> (Prickly Bitter-pea)			
356.	15505 <i>Daviesia incrassata</i> subsp. <i>incrassata</i>			
357.	16583 <i>Daviesia intricata</i> subsp. <i>intricata</i>			
358.	3827 <i>Daviesia oppositifolia</i> (Rattle-pea)			
359.	3828 <i>Daviesia ovata</i> (Broad-leaf Daviesia)		T	
360.	3840 <i>Daviesia spinosissima</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
361.	3846 <i>Daviesia trigonophylla</i>			
362.	3872 <i>Euchilopsis linearis</i> (Swamp Pea)			
363.	3873 <i>Eutaxia cuneata</i>			
364.	3876 <i>Eutaxia epacridoides</i>			
365.	20214 <i>Eutaxia myrtifolia</i>			
366.	20209 <i>Eutaxia neurocalyx</i> subsp. <i>neurocalyx</i>			
367.	3879 <i>Eutaxia parvifolia</i>			
368.	3891 <i>Gastrolobium bilobum</i> (Heart Leaf Poison)			
369.	20508 <i>Gastrolobium bracteolosum</i>			
370.	20490 <i>Gastrolobium coriaceum</i>			
371.	20453 <i>Gastrolobium latifolium</i>			
372.	19725 <i>Gastrolobium musaceum</i>			
373.	10981 <i>Gastrolobium parviflorum</i>			
374.	20512 <i>Gastrolobium praemorsum</i>			
375.	19733 <i>Gastrolobium retusum</i>			
376.	3924 <i>Gastrolobium spinosum</i> (Prickly Poison)			
377.	3932 <i>Gastrolobium velutinum</i> (Stirling Range Poison)			
378.	3947 <i>Gompholobium burtonioides</i>			
379.	3948 <i>Gompholobium capitatum</i>			
380.	10909 <i>Gompholobium confertum</i>			
381.	19216 <i>Gompholobium cyaninum</i>			
382.	3950 <i>Gompholobium knightianum</i>			
383.	3951 <i>Gompholobium marginatum</i>			
384.	3953 <i>Gompholobium ovatum</i>			
385.	3954 <i>Gompholobium polymorphum</i>			
386.	11083 <i>Gompholobium scabrum</i>			
387.	3958 <i>Gompholobium venustum</i> (Handsome Wedge-pea)			
388.	11115 <i>Gompholobium villosum</i>			
389.	3959 <i>Gompholobium viscidulum</i>			
390.	17787 <i>Goodia medicaginea</i>			
391.	3961 <i>Hardenbergia comptoniana</i> (Native Wisteria)			
392.	3964 <i>Hovea chorizemifolia</i> (Holly-leaved Hovea)			
393.	3965 <i>Hovea elliptica</i> (Tree Hovea)			
394.	3966 <i>Hovea pungens</i> (Devil's Pins, Puyenak)			
395.	3968 <i>Hovea trisperma</i> (Common Hovea)			
396.	3992 <i>Isotropis cuneifolia</i> (Granny Bonnets)			
397.	19700 <i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>			
398.	4001 <i>Jacksonia calycina</i>		P4	
399.	4002 <i>Jacksonia capitata</i>			
400.	4005 <i>Jacksonia condensata</i>			
401.	4012 <i>Jacksonia furcellata</i> (Grey Stinkwood)			
402.	4017 <i>Jacksonia horrida</i>			
403.	4028 <i>Jacksonia spinosa</i>			
404.	4036 <i>Kennedia carinata</i>			
405.	4037 <i>Kennedia coccinea</i> (Coral Vine)			
406.	4041 <i>Kennedia microphylla</i>			
407.	4042 <i>Kennedia nigricans</i> (Black Kennedia)			
408.	4049 <i>Latrobea diosmifolia</i>			
409.	4050 <i>Latrobea genistoides</i>			
410.	20704 <i>Latrobea recurva</i>		P3	
411.	17757 <i>Latrobea</i> sp. South Coast (A.M. Ashby 1949)			
412.	4059 <i>Lotus angustissimus</i> (Narrowleaf Trefoil)	Y		
413.	4085 <i>Melilotus indicus</i>	Y		
414.	4114 <i>Ornithopus pinnatus</i> (Slender Serradella)	Y		
415.	17114 <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i>			
416.	4140 <i>Phyllota barbata</i>			
417.	17016 <i>Podalyria sericea</i>	Y		
418.	4164 <i>Pultenaea aspalathoides</i>			
419.	20781 <i>Pultenaea calycina</i> subsp. <i>calycina</i>		P3	
420.	4172 <i>Pultenaea ericifolia</i>			
421.	4179 <i>Pultenaea pinifolia</i>		P3	
422.	4185 <i>Pultenaea strobilifera</i>			
423.	4187 <i>Pultenaea verruculosa</i>			
424.	4200 <i>Sphaerolobium alatum</i>			
425.	17551 <i>Sphaerolobium drummondii</i>			
426.	4204 <i>Sphaerolobium grandiflorum</i>			
427.	4206 <i>Sphaerolobium macranthum</i>			
428.	4207 <i>Sphaerolobium medium</i>			
429.	4208 <i>Sphaerolobium nudiflorum</i>			
430.	4210 <i>Sphaerolobium scabriusculum</i>			

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431.	4211	<i>Sphaerolobium vimineum</i> (Leafless Globe Pea)			
432.	4256	<i>Templetonia retusa</i> (Cockies Tongues)			
433.	4293	<i>Trifolium cernuum</i> (Drooping Flower Clover)	Y		
434.	4302	<i>Trifolium ligusticum</i> (Ligurian Clover)	Y		
435.	4325	<i>Viminaria juncea</i> (Swishbush, Koweda)			

Funariaceae

436.	32464	<i>Entosthodon subnudus</i> var. <i>subnudus</i>			
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Gentianaceae

437.	6539	<i>Centaurium erythraea</i> (Common Centaury)	Y		
438.	41660	<i>Schenkia australis</i>			
439.	6544	<i>Sebaea ovata</i> (Yellow Sebaea)			

Goodeniaceae

440.	7418	<i>Coopermookia polygalacea</i>			
441.	7420	<i>Dampiera alata</i> (Winged-stem Dampiera)			
442.	7449	<i>Dampiera juncea</i> (Rush-like Dampiera)			
443.	7452	<i>Dampiera leptoclada</i> (Slender-shooted Dampiera)			
444.	7454	<i>Dampiera linearis</i> (Common Dampiera)			
445.	7462	<i>Dampiera pedunculata</i>			
446.	7471	<i>Dampiera sacculata</i> (Pouched Dampiera)			
447.	29362	<i>Goodenia coerulea</i>			
448.	7508	<i>Goodenia filiformis</i> (Thread-leaved Goodenia)			
449.	7517	<i>Goodenia incana</i> (Hoary Goodenia)			
450.	18633	<i>Goodenia lancifolia</i> (Scruffy Goodenia)			
451.	7523	<i>Goodenia leptoclada</i> (Thin-stemmed Goodenia)			
452.	7537	<i>Goodenia pterigosperma</i>			
453.	19051	<i>Goodenia scapigera</i> subsp. <i>scapigera</i>			
454.	19050	<i>Goodenia</i> sp. South Coast (A.R. Annel's ARA1846)		P3	
455.	7575	<i>Lechenaultia formosa</i> (Red Leschenaultia)			
456.	7590	<i>Lechenaultia tubiflora</i> (Heath Leschenaultia)			
457.	7602	<i>Scaevola calliptera</i>			
458.	7613	<i>Scaevola glandulifera</i> (Viscid Hand-flower)			
459.	7624	<i>Scaevola microphylla</i> (Small-leaved Scaevola)			
460.	7646	<i>Scaevola striata</i> (Royal Robe)			
461.	13175	<i>Scaevola striata</i> var. <i>striata</i>			
462.	44183	<i>Scaevola xanthina</i>		P2	
463.	7659	<i>Velleia foliosa</i>			
464.	7665	<i>Velleia trinervis</i>			

Gyrostemonaceae

465.	2779	<i>Cypselocarpus haloragoides</i>			
466.	2790	<i>Gyrostemon thesioides</i>		P2	

Haemodoraceae

467.	11931	<i>Anigozanthos bicolor</i> subsp. <i>decrescens</i>			
468.	1407	<i>Anigozanthos flavidus</i> (Tall Kangaroo Paw)			
469.	1409	<i>Anigozanthos humilis</i> (Catspaw)			
470.	1412	<i>Anigozanthos onycis</i> (Branched Catspaw)			
471.	1413	<i>Anigozanthos preissii</i> (Albany Catspaw)			
472.	1415	<i>Anigozanthos rufus</i> (Red Kangaroo Paw)			
473.	11826	<i>Conostylis aculeata</i> subsp. <i>aculeata</i>			
474.	1441	<i>Conostylis misera</i> (Grass Conostylis)		T	
475.	1447	<i>Conostylis pusilla</i>			
476.	1453	<i>Conostylis serrulata</i>			
477.	1454	<i>Conostylis setigera</i> (Bristly Cottonhead)			
478.	11597	<i>Conostylis setigera</i> subsp. <i>setigera</i>			
479.	1460	<i>Conostylis vaginata</i> (Sheath Conostylis)			
480.	1465	<i>Haemodorum discolor</i>			
481.	1468	<i>Haemodorum laxum</i>			
482.	1472	<i>Haemodorum simplex</i>			
483.	1474	<i>Haemodorum sparsiflorum</i>			
484.	1475	<i>Haemodorum spicatum</i> (Mardja)			
485.	1481	<i>Tribonanthes australis</i>			
486.	1485	<i>Tribonanthes violacea</i>			

Haloragaceae

487.	33620	<i>Glischrocaryon angustifolium</i>			
488.	6143	<i>Glischrocaryon aureum</i> (Common Popflower)			
489.	6160	<i>Gonocarpus paniculatus</i>			
490.	6167	<i>Gonocarpus trichostachyus</i>		P3	
491.	6199	<i>Myriophyllum tillaeoides</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Hemerocallidaceae				
492.	23474 <i>Agrostocrinum hirsutum</i>			
493.	23502 <i>Agrostocrinum scabrum</i> subsp. <i>littorale</i>		P2	
494.	1276 <i>Caesia micrantha</i> (Pale Grass Lily)			
495.	1277 <i>Caesia occidentalis</i>			
496.	1295 <i>Johnsonia acaulis</i>			
497.	1297 <i>Johnsonia lupulina</i> (Hooded Lily)			
498.	1299 <i>Johnsonia teretifolia</i> (Hooded Lily)			
499.	1361 <i>Tricoryne elatior</i> (Yellow Autumn Lily)			
500.	1362 <i>Tricoryne humilis</i>			
501.	29478 <i>Tricoryne</i> sp. South Coast (T.E.H. Aplin 2653)			
Hydrocharitaceae				
502.	161 <i>Halophila australis</i>			
503.	168 <i>Ottelia ovalifolia</i> (Swamp Lily)			
Iridaceae				
504.	11445 <i>Ferraria crispa</i> subsp. <i>crispa</i>	Y		
505.	11749 <i>Orthrosanthus laxus</i> var. <i>laxus</i> (Morning Iris)			
506.	1539 <i>Orthrosanthus multiflorus</i> (Morning Iris)			
507.	1546 <i>Patersonia juncea</i> (Rush Leaved Patersonia)			
508.	19669 <i>Patersonia lanata</i> forma <i>lanata</i>			
509.	1548 <i>Patersonia limbata</i>			
510.	1553 <i>Patersonia umbrosa</i> (Yellow Flags)			
Isoetaceae				
511.	7 <i>Isoetes australis</i>			
Juncaceae				
512.	1178 <i>Juncus bufonius</i> (Toad Rush)	Y		
513.	1179 <i>Juncus caespiticius</i> (Grassy Rush)			
514.	1184 <i>Juncus holoschoenus</i> (Jointleaf Rush)			
515.	11922 <i>Juncus kraussii</i> subsp. <i>australiensis</i>			
516.	1186 <i>Juncus microcephalus</i>	Y		
517.	1195 <i>Juncus subsecundus</i> (Finger Rush)			
Juncaginaceae				
518.	151 <i>Triglochin striata</i>			
Lamiaceae				
519.	6839 <i>Hemiandra pungens</i> (Snakebush)			
520.	6855 <i>Hemigenia humilis</i>			
521.	6856 <i>Hemigenia incana</i> (Silky Hemigenia)			
522.	6865 <i>Hemigenia podalyrina</i>			
523.	6893 <i>Microcorys glabra</i>			
524.	6894 <i>Microcorys lenticularis</i>			
525.	6901 <i>Microcorys purpurea</i>			
526.	12727 <i>Prostanthera verticillaris</i>		P1	
527.	6939 <i>Westringia dampieri</i>			
Lauraceae				
528.	2952 <i>Cassytha glabella</i> (Tangled Dodder Laurel)			
529.	11211 <i>Cassytha glabella</i> forma <i>dispar</i>			
530.	2953 <i>Cassytha melantha</i> (Large Dodder-laurel)			
Lentibulariaceae				
531.	7158 <i>Utricularia volubilis</i> (Twining Bladderwort)			
Lindsaeaceae				
532.	59 <i>Lindsaea linearis</i> (Screw Fern)			
Loganiaceae				
533.	6515 <i>Logania vaginalis</i> (White Spray)			
534.	46255 <i>Orianthera campanulata</i>			
535.	46314 <i>Orianthera serpyllifolia</i>			
536.	46315 <i>Orianthera serpyllifolia</i> subsp. <i>serpyllifolia</i>			
537.	16177 <i>Phyllangium paradoxum</i>			
Lophocoleaceae				
538.	<i>Chiloscyphus semiteres</i> var. <i>semiteres</i>			
Loranthaceae				
539.	2401 <i>Nuytsia floribunda</i> (Christmas Tree, Mudja)			
Lycopodiaceae				
540.	4 <i>Phylloglossum drummondii</i> (Pigmy Clubmoss)			

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Lythraceae				
541.	5281 <i>Lythrum hyssopifolia</i> (Lesser Loosestrife)	Y		
Malvaceae				
542.	40920 <i>Commersonia grandiflora</i>			
543.	40925 <i>Commersonia parviflora</i> (Small Flowered Rulingia)			
544.	5028 <i>Lasiopetalum cordifolium</i>			
545.	5035 <i>Lasiopetalum indutum</i>			
546.	33498 <i>Lasiopetalum</i> sp. Denmark (B.G. Hammersley 2012)		P3	
547.	48445 <i>Lasiopetalum</i> sp. Wellstead (K.A. Shepherd & C.F. Wilkins KS 1650)		P1	
548.	36480 <i>Malva arborea</i> (Tree Mallow)	Y		
549.	36522 <i>Malva pseudolavatera</i>	Y		
550.	5075 <i>Thomasia angustifolia</i> (Narrow Leaved Thomasia)			
551.	5079 <i>Thomasia discolor</i>			
552.	5080 <i>Thomasia foliosa</i>			
553.	5091 <i>Thomasia paniculata</i>			
554.	5092 <i>Thomasia pauciflora</i> (Few Flowered Thomasia)			
555.	5094 <i>Thomasia purpurea</i>			
556.	5097 <i>Thomasia rhynchocarpa</i>			
557.	5100 <i>Thomasia solanacea</i>		P4	
558.	5101 <i>Thomasia stelligera</i>			
Menyanthaceae				
559.	36178 <i>Liparophyllum lasiospermum</i>			
560.	36180 <i>Liparophyllum latifolium</i>			
561.	36181 <i>Ornduffia parnassifolia</i>			
Montiaceae				
562.	20476 <i>Calandrinia</i> sp. southern granites (G.J. Keighery 11266)			
Myrtaceae				
563.	5315 <i>Actinodium cunninghamii</i> (Albany Daisy)			
564.	35620 <i>Actinodium</i> sp. Fitzgerald River (H.A. Froebe & R. Classen 810)			
565.	17202 <i>Agonis flexuosa</i> var. <i>flexuosa</i>			
566.	17203 <i>Agonis flexuosa</i> var. <i>latifolia</i>			
567.	19789 <i>Agonis theiformis</i>			
568.	42793 <i>Astartea aspera</i> subsp. <i>aspera</i>			
569.	20125 <i>Astartea corniculata</i>			
570.	20127 <i>Astartea glomerulosa</i> (Early Astartea)			
571.	45213 <i>Astartea pulchella</i>			
572.	20131 <i>Astartea</i> sp. southern ranges (T.E.H. Aplin 2108)			
573.	5376 <i>Beaufortia anisandra</i> (Dark Beaufortia)			
574.	5379 <i>Beaufortia cyrtodonta</i> (Stirling Range Bottlebrush, Stirling Range Beaufortia)			
575.	5381 <i>Beaufortia decussata</i> (Gravel Bottlebrush)			
576.	5383 <i>Beaufortia empetrifolia</i> (South Coast Beaufortia)			
577.	5391 <i>Beaufortia schaueri</i> (Pink Beaufortia, Pink Bottlebrush)			
578.	5394 <i>Callistemon glaucus</i>			
579.	5397 <i>Calothamnus affinis</i>			
580.	5409 <i>Calothamnus gracilis</i>			
581.	5416 <i>Calothamnus lehmannii</i>			
582.	5419 <i>Calothamnus microcarpus</i>		P4	
583.	5425 <i>Calothamnus preissii</i>			
584.	35816 <i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i>			
585.	5427 <i>Calothamnus robustus</i>		P3	
586.	5429 <i>Calothamnus sanguineus</i> (Silky-leaved Blood flower, Pindak)			
587.	5430 <i>Calothamnus schaueri</i>			
588.	5434 <i>Calothamnus villosus</i>			
589.	5440 <i>Calytrix asperula</i> (Brush Starflower)			
590.	5458 <i>Calytrix flavescens</i> (Summer Starflower)			
591.	5465 <i>Calytrix leschenaultii</i>			
592.	5474 <i>Calytrix pulchella</i>		P3	
593.	5477 <i>Calytrix similis</i>			
594.	5482 <i>Calytrix tenuiramea</i>			
595.	5483 <i>Calytrix tetragona</i> (Common Fringe-myrtle)			
596.	5491 <i>Chamelaucium ciliatum</i>			
597.	5492 <i>Chamelaucium confertiflorum</i>			
598.	14260 <i>Chamelaucium</i> sp. Cape Riche (C.A. Gardner 2153)		P2	
599.	35639 <i>Chamelaucium</i> sp. Waychinicup (D. Davidson s.n. PERTH 01486527)		P2	Y
600.	17104 <i>Corymbia calophylla</i> (Marri)			
601.	5508 <i>Darwinia citriodora</i> (Lemon-scented Darwinia)			
602.	5510 <i>Darwinia diosmoides</i>			
603.	5519 <i>Darwinia oederoides</i>			

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604.	5533	<i>Darwinia vestita</i> (Pom-pom Darwinia)			
605.	5541	<i>Eremaea pauciflora</i>			
606.	5546	<i>Eucalyptus acies</i> (Woolburnup Mallee)			
607.	42061	<i>Eucalyptus adesmodaphnia</i>			
608.	5550	<i>Eucalyptus angulosa</i> (Ridge-fruited Mallee, Kwararl)			
609.	5570	<i>Eucalyptus buprestium</i> (Apple Mallee)			
610.	16885	<i>Eucalyptus buprestium</i> x <i>staeri</i>		P4	
611.	5600	<i>Eucalyptus conglobata</i> (Port Lincoln Mallee)			
612.	5605	<i>Eucalyptus cornuta</i> (Yate, Yeid)			
613.	29738	<i>Eucalyptus cuspidata</i>			
614.	5616	<i>Eucalyptus decurva</i> (Slender Mallee)			
615.	5625	<i>Eucalyptus diversicolor</i> (Karri)			
616.	5627	<i>Eucalyptus doratxylon</i> (Spearwood Mallee, Keidjund)			
617.	5643	<i>Eucalyptus falcata</i> (Silver Mallet, Dulyumuk)			
618.	5661	<i>Eucalyptus goniantha</i> (Jerdacuttup Mallee)			
619.	11458	<i>Eucalyptus goniantha</i> subsp. <i>goniantha</i> (Jerdacuttup Mallee)			
620.	5693	<i>Eucalyptus lehmannii</i> (Bushy Yate)			
621.	19665	<i>Eucalyptus lehmannii</i> subsp. <i>lehmannii</i>			
622.	5708	<i>Eucalyptus marginata</i> (Jarrah, Djara)			
623.	13547	<i>Eucalyptus marginata</i> subsp. <i>marginata</i> (Jarrah)			
624.	42063	<i>Eucalyptus notactites</i>			
625.	5735	<i>Eucalyptus pachyloma</i> (Kalgan Plains Mallee)			
626.	16201	<i>Eucalyptus phenax</i>			
627.	12867	<i>Eucalyptus pluricaulis</i>			
628.	5751	<i>Eucalyptus preissiana</i> (Bell-fruited Mallee)			
629.	15069	<i>Eucalyptus preissiana</i> subsp. <i>preissiana</i>			
630.	5759	<i>Eucalyptus redunca</i> (Black Marlock)			
631.		<i>Eucalyptus</i> sp.			
632.	5776	<i>Eucalyptus staeri</i> (Albany Blackbutt)			
633.	5784	<i>Eucalyptus talyuberlup</i>			
634.	5788	<i>Eucalyptus tetraptera</i> (Four-winged Mallee)			
635.	5796	<i>Eucalyptus uncinata</i> (Hook-leaved Mallee)			
636.	19661	<i>Eucalyptus</i> x <i>missilis</i>		P4	
637.	5816	<i>Homalospermum firmum</i>			
638.	5817	<i>Hypocalymma angustifolium</i> (White Myrtle, Kudjid)			
639.	5818	<i>Hypocalymma cordifolium</i>			
640.	5827	<i>Hypocalymma strictum</i>			
641.	5832	<i>Kunzea ericifolia</i> (Spearwood, Pondil)			
642.	17506	<i>Kunzea ericifolia</i> subsp. <i>ericifolia</i>			
643.	5835	<i>Kunzea micrantha</i>			
644.	5836	<i>Kunzea micromera</i>			
645.	5837	<i>Kunzea montana</i> (Mountain Kunzea)			
646.	5839	<i>Kunzea preissiana</i>			
647.	5841	<i>Kunzea recurva</i>			
648.	5878	<i>Melaleuca blaeriifolia</i>			
649.	5880	<i>Melaleuca bracteosa</i>			
650.	18184	<i>Melaleuca croxfordiae</i>			
651.	5900	<i>Melaleuca cuticularis</i> (Saltwater Paperbark)			
652.	5902	<i>Melaleuca densa</i>			
653.	5905	<i>Melaleuca diosmifolia</i>			
654.	5909	<i>Melaleuca elliptica</i> (Granite Bottlebrush, Ngow)			
655.	5922	<i>Melaleuca lanceolata</i> (Rottnest Teatree, Moonah)			
656.	5937	<i>Melaleuca micromera</i>		P3	
657.	5938	<i>Melaleuca microphylla</i>			
658.	15993	<i>Melaleuca pentagona</i> var. <i>pentagona</i>			
659.	5952	<i>Melaleuca preissiana</i> (Moonah)			
660.	5971	<i>Melaleuca striata</i>			
661.	5972	<i>Melaleuca strobophylla</i>			
662.	5973	<i>Melaleuca suberosa</i> (Corky Honey-myrtle)			
663.	5980	<i>Melaleuca thymoides</i>			
664.	5985	<i>Melaleuca undulata</i> (Hidden Honey-myrtle)			
665.	5987	<i>Melaleuca viminea</i> (Mohan)			
666.	15876	<i>Melaleuca viminea</i> subsp. <i>demissa</i>			
667.	13280	<i>Melaleuca viminea</i> subsp. <i>viminea</i>			
668.	6006	<i>Pericalymma ellipticum</i> (Swamp Teatree)			
669.	16477	<i>Pericalymma ellipticum</i> var. <i>ellipticum</i>			
670.	16478	<i>Pericalymma ellipticum</i> var. <i>floridum</i>			
671.	15501	<i>Pericalymma spongiocaulum</i>			
672.	6027	<i>Rinzia schollerifolia</i> (Cranberry Rinzia)			
673.	20100	<i>Taxandria angustifolia</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
674.	20116	<i>Taxandria floribunda</i>			
675.	20115	<i>Taxandria juniperina</i>			
676.	20135	<i>Taxandria linearifolia</i>			
677.	20134	<i>Taxandria marginata</i>			
678.	20133	<i>Taxandria parviceps</i>			
679.	20103	<i>Taxandria spathulata</i>			
680.	29720	<i>Tetrapora glomerata</i>			
681.	6065	<i>Thryptomene saxicola</i> (Rock Thryptomene)			
682.	6076	<i>Verticordia densiflora</i> (Compacted Featherflower)			
683.	12411	<i>Verticordia densiflora</i> var. <i>cespitosa</i>			
684.	12419	<i>Verticordia endlicheriana</i>			
685.	15619	<i>Verticordia endlicheriana</i> var. <i>endlicheriana</i>			
686.	12421	<i>Verticordia endlicheriana</i> var. <i>major</i>			
687.	6079	<i>Verticordia fastigiata</i> (Mouse Featherflower)			
688.	6084	<i>Verticordia habrantha</i> (Hidden Featherflower)			
689.	6085	<i>Verticordia harveyi</i> (Autumn Featherflower)		P4	
690.	14717	<i>Verticordia multiflora</i> subsp. <i>multiflora</i>			
691.	12449	<i>Verticordia plumosa</i> var. <i>brachyphylla</i>			
692.	12450	<i>Verticordia plumosa</i> var. <i>grandiflora</i>			
693.	12451	<i>Verticordia plumosa</i> var. <i>incrassata</i>			
694.	15618	<i>Verticordia plumosa</i> var. <i>plumosa</i>			
695.	12461	<i>Verticordia sieberi</i> var. <i>lomata</i>			
696.	12465	<i>Verticordia subulata</i>			

Olacaceae

697.	2365	<i>Olax benthamiana</i>			
698.	2366	<i>Olax phyllanthi</i>			

Orchidaceae

699.	1577	<i>Caladenia barbarossa</i> (Dragon Orchid)			
700.	1580	<i>Caladenia cairnsiana</i> (Zebra Orchid)			
701.	1581	<i>Caladenia corynephora</i>			
702.	11165	<i>Caladenia falcata</i>			
703.	15348	<i>Caladenia flava</i> subsp. <i>flava</i>			
704.	15350	<i>Caladenia flava</i> subsp. <i>sylvestris</i>			
705.	18022	<i>Caladenia fuscolutelescens</i>			
706.	13856	<i>Caladenia granitora</i>		T	
707.	15353	<i>Caladenia heberleana</i>			
708.	15354	<i>Caladenia hirta</i> subsp. <i>hirta</i>			
709.	1599	<i>Caladenia latifolia</i> (Pink Fairy Orchid)			
710.	1601	<i>Caladenia lobata</i> (Butterfly Orchid)			
711.	1603	<i>Caladenia longiclavata</i> (Clubbed Spider Orchid)			
712.	15372	<i>Caladenia nana</i> subsp. <i>unita</i>			
713.	1609	<i>Caladenia pectinata</i> (King Spider Orchid)			
714.	18033	<i>Caladenia pholcoidea</i> subsp. <i>pholcoidea</i>			
715.	15376	<i>Caladenia polychroma</i>			
716.	15379	<i>Caladenia serotina</i>			
717.	18019	<i>Caladenia vulgata</i>			
718.	12945	<i>Corybas recurvus</i>			
719.	15404	<i>Cyanicula sericea</i>			
720.	10964	<i>Cyrtostylis robusta</i>			
721.	46873	<i>Diuris littoralis</i>			
722.	1638	<i>Diuris setacea</i> (Bristly Donkey Orchid)			
723.	1643	<i>Elythranthera brunonis</i> (Purple Enamel Orchid)			
724.	1644	<i>Elythranthera emarginata</i> (Pink Enamel Orchid)			
725.	1645	<i>Epiblema grandiflorum</i> (Babe-in-a-cradle)			
726.	15410	<i>Eriochilus dilatatus</i> subsp. <i>dilatatus</i>			
727.	15412	<i>Eriochilus dilatatus</i> subsp. <i>multiflorus</i>			
728.	13866	<i>Eriochilus pulchellus</i>			
729.	1653	<i>Leporella fimbriata</i> (Hare Orchid)			
730.	15418	<i>Leptoceras menziesii</i>			
731.	1656	<i>Lyperanthus serratus</i> (Rattle Beak Orchid)			
732.	1657	<i>Microtis alba</i> (White Mignonette Orchid)			
733.	1658	<i>Microtis atrata</i> (Swamp Mignonette Orchid)			
734.	15419	<i>Microtis media</i> subsp. <i>media</i>			
735.	1662	<i>Microtis pulchella</i> (Beautiful Mignonette Orchid)		P4	
736.	15424	<i>Praecoxanthus aphyllus</i>			
737.	1668	<i>Prasopphyllum brownii</i>			
738.	11066	<i>Prasopphyllum cucullatum</i> (Hooded Leek Orchid)			
739.	1672	<i>Prasopphyllum fimbria</i> (Fringed Leek Orchid)			
740.	16688	<i>Prasopphyllum gracile</i>			

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741.	1680	<i>Prasophyllum parvifolium</i> (Autumn Leek Orchid)			
742.	1687	<i>Pterostylis dilatata</i>			
743.	1693	<i>Pterostylis recurva</i> (Jug Orchid)			
744.		<i>Pterostylis</i> sp.			
745.	10856	<i>Thelymitra benthamiana</i> (Leopard Orchid)			
746.	1702	<i>Thelymitra campanulata</i> (Shirt Orchid)			
747.	1705	<i>Thelymitra crinita</i> (Blue Lady Orchid)			
748.	1706	<i>Thelymitra cucullata</i> (Swamp Sun Orchid)			
749.	1708	<i>Thelymitra fuscolutea</i> (Chestnut Sun Orchid)			
750.	11143	<i>Thelymitra graminea</i>			
751.	1715	<i>Thelymitra spiralis</i> (Curlylocks)			
752.	1716	<i>Thelymitra tigrina</i> (Tiger Orchid)			
753.	1718	<i>Thelymitra villosa</i> (Custard Orchid)			
754.	20731	<i>Thelymitra vulgaris</i>			

Papaveraceae

755.	31532	<i>Fumaria muralis</i> subsp. <i>muralis</i>	Y		
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Phyllanthaceae

756.	4675	<i>Phyllanthus calycinus</i> (False Boronia)			
757.	4690	<i>Poranthera huegelii</i>			

Phytolaccaceae

758.	2793	<i>Phytolacca octandra</i> (Red Ink Plant)	Y		
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Pittosporaceae

759.	25787	<i>Billardiera drummondii</i>			
760.	25798	<i>Billardiera fusiformis</i> (Australian Bluebell)			
761.	3159	<i>Billardiera laxiflora</i>			
762.	3165	<i>Billardiera variifolia</i>			
763.	25779	<i>Billardiera venusta</i>			
764.	17633	<i>Marianthus erubescens</i>			
765.	17638	<i>Marianthus granulatus</i>		P4	

Plantaginaceae

766.	7112	<i>Veronica plebeia</i> (Creeping Speedwell)			
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Pleurophascaceae

767.	19062	<i>Pleurophascum occidentale</i>		P4	
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Poaceae

768.	29839	<i>Agrostis castellana</i>	Y		
769.	184	<i>Aira caryophyllea</i> (Silvery Hairgrass)	Y		
770.	195	<i>Amphipogon avenaceus</i>			
771.	197	<i>Amphipogon debilis</i>			
772.	20196	<i>Amphipogon setaceus</i>			
773.	17241	<i>Austrotipa hemipogon</i>			
774.	17242	<i>Austrotipa juncifolia</i>			
775.	17257	<i>Austrotipa variabilis</i>			
776.	285	<i>Cynosurus echinatus</i> (Rough Dogtail)	Y		
777.	286	<i>Cyperochloa hirsuta</i>			
778.	299	<i>Deyeuxia quadriseta</i> (Reed Bentgrass)			
779.	337	<i>Echinochloa pyramidalis</i> (Antelope Grass)	Y		
780.	376	<i>Eragrostis curvula</i> (African Lovegrass)	Y		
781.	17610	<i>Eragrostis tenuifolia</i>	Y		
782.	444	<i>Holcus lanatus</i> (Yorkshire Fog)	Y		
783.	19954	<i>Lachnagrostis aemula</i>			
784.	20019	<i>Lachnagrostis filiformis</i>			
785.	492	<i>Neurachne alopecuroides</i> (Foxtail Mulga Grass)			
786.	528	<i>Paspalum distichum</i> (Water Couch)	Y		
787.	548	<i>Phalaris aquatica</i> (Phalaris)	Y		
788.	35396	<i>Poa billardierei</i>		P3	
789.	16098	<i>Poa poiformis</i> var. <i>poiformis</i>			
790.	578	<i>Poa porphyroclados</i>			
791.	582	<i>Polypogon monspeliensis</i> (Annual Beardgrass)	Y		
792.	40430	<i>Rytidosperma pilosum</i>			
793.	667	<i>Tetrarrhena laevis</i> (Forest Ricegrass)			

Polygalaceae

794.	4550	<i>Comesperma calymega</i> (Blue-spike Milkwort)			
795.	4557	<i>Comesperma nudiusculum</i>			
796.	4559	<i>Comesperma polygaloides</i> (Small Milkwort)			
797.	4561	<i>Comesperma scoparium</i> (Broom Milkwort)			
798.	4564	<i>Comesperma virgatum</i> (Milkwort)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Polygonaceae				
799.	2412 <i>Muehlenbeckia adpressa</i> (Climbing Lignum)			
800.	2435 <i>Rumex drummondii</i>		P4	
801.	11541 <i>Rumex dumosus</i> var. <i>dumosus</i>			
802.	2440 <i>Rumex pulcher</i> (Fiddle Dock)	Y		
Posidoniaceae				
803.	122 <i>Posidonia angustifolia</i>			
804.	123 <i>Posidonia australis</i> (Fibreball Weed)			
805.	108 <i>Posidonia robertsoniae</i>			
806.	125 <i>Posidonia sinuosa</i>			
Potamogetonaceae				
807.	48621 <i>Althenia patentifolia</i>			
Pottiaceae				
808.	32315 <i>Barbula calycina</i>			
809.	32451 <i>Triquetrella papillata</i>			
Primulaceae				
810.	6484 <i>Samolus repens</i> (Creeping Brookweed)			
Proteaceae				
811.	10824 <i>Acidonia microcarpa</i>			
812.	1769 <i>Adenanthos apiculatus</i>			
813.	1773 <i>Adenanthos cuneatus</i> (Coastal Jugflower)			
814.	1782 <i>Adenanthos filifolius</i>		P4	
815.	1791 <i>Adenanthos obovatus</i> (Basket Flower)			
816.	11685 <i>Adenanthos sericeus</i> subsp. <i>sericeus</i> (Coastal Woollybush)			
817.	32176 <i>Banksia acuminata</i>		P4	
818.	32686 <i>Banksia anatona</i>		T	
819.	32684 <i>Banksia arctotidis</i>			
820.	32681 <i>Banksia armata</i> (Prickly Dryandra)			
821.	32682 <i>Banksia armata</i> var. <i>armata</i>			
822.	32683 <i>Banksia armata</i> var. <i>ignicida</i>			
823.	1800 <i>Banksia attenuata</i> (Slender Banksia, Piara)			
824.	1803 <i>Banksia baxteri</i> (Baxter's Banksia)			
825.	32676 <i>Banksia biterax</i>			
826.	1806 <i>Banksia brownii</i> (Feather-leaved Banksia)		T	
827.	32597 <i>Banksia brunnea</i>			
828.	1808 <i>Banksia caleyi</i> (Cayley's Banksia)			
829.	32624 <i>Banksia calophylla</i>			
830.	32621 <i>Banksia cirsioides</i>			
831.	1811 <i>Banksia coccinea</i> (Scarlet Banksia)			
832.	32618 <i>Banksia concinna</i>		P4	
833.	1814 <i>Banksia dryandroides</i> (Dryandra-leaved Banksia)			
834.	32540 <i>Banksia falcata</i> (Prickly Dryandra)			
835.	32525 <i>Banksia formosa</i> (Showy Dryandra)			
836.	11532 <i>Banksia gardneri</i> var. <i>gardneri</i>			
837.	1830 <i>Banksia littoralis</i> (Swamp Banksia, Pungura)			
838.	32210 <i>Banksia montana</i>		T	
839.	32207 <i>Banksia mucronulata</i> (Swordfish Dryandra)			
840.	32202 <i>Banksia nivea</i> (Honeypot Dryandra, Pudjak)			
841.	1836 <i>Banksia nutans</i> (Nodding Banksia)			
842.	11941 <i>Banksia nutans</i> var. <i>cernuella</i>			
843.	32198 <i>Banksia obovata</i> (Wedge-leaved Dryandra)			
844.	1837 <i>Banksia occidentalis</i> (Red Swamp Banksia)			
845.	32164 <i>Banksia pellaefolia</i>			
846.	32160 <i>Banksia plumosa</i>			
847.	1841 <i>Banksia praemorsa</i> (Cut-leaf Banksia)			
848.	32137 <i>Banksia pteridifolia</i> (Tangled Honeypot)			
849.	1844 <i>Banksia quercifolia</i> (Oak-leaved Banksia)			
850.	32088 <i>Banksia rufa</i>			
851.	32084 <i>Banksia serra</i> (Serrate-leaved Dryandra)		P4	
852.	32076 <i>Banksia sessilis</i> (Parrot Bush, Pudjak)			
853.	<i>Banksia</i> sp.			
854.	12111 <i>Banksia sphaerocarpa</i> var. <i>sphaerocarpa</i> (Fox Banksia)			
855.	32036 <i>Banksia tenuis</i> var. <i>tenuis</i>			
856.	1854 <i>Banksia verticillata</i> (Albany Banksia)		T	
857.	1862 <i>Conospermum caeruleum</i> (Blue Brother)			
858.	15610 <i>Conospermum caeruleum</i> subsp. <i>caeruleum</i>			
859.	16855 <i>Conospermum caeruleum</i> subsp. <i>oblanceolatum</i>			

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860.	16851	<i>Conospermum coerulescens</i> subsp. <i>dorrienii</i>			
861.	1872	<i>Conospermum flexuosum</i> (Tangled Smokebush)			
862.	1873	<i>Conospermum floribundum</i>			
863.	1879	<i>Conospermum petiolare</i>			
864.	1883	<i>Conospermum teretifolium</i> (Spider Smokebush)			
865.	1885	<i>Conospermum triplinervium</i> (Tree Smokebush)			
866.	1944	<i>Franklandia fucifolia</i> (Lanoline Bush)			
867.	1971	<i>Grevillea cagiana</i> (Red Toothbrushes)			
868.	14405	<i>Grevillea coccinea</i> subsp. <i>coccinea</i>			
869.	2005	<i>Grevillea fasciculata</i>			
870.	2050	<i>Grevillea nudiflora</i>			
871.	2052	<i>Grevillea occidentalis</i>			
872.	2053	<i>Grevillea oligantha</i>			
873.	2066	<i>Grevillea pilulifera</i> (Woolly-flowered Grevillea)			
874.	15991	<i>Grevillea pulchella</i> subsp. <i>pulchella</i>			
875.	2105	<i>Grevillea tetragonoloba</i>			
876.	2112	<i>Grevillea trifida</i>			
877.	2137	<i>Hakea ceratophylla</i> (Horned Leaf Hakea)			
878.	2145	<i>Hakea corymbosa</i> (Cauliflower Hakea)			
879.	2150	<i>Hakea cucullata</i> (Hood Leaved Hakea)			
880.	12226	<i>Hakea denticulata</i>			
881.	12227	<i>Hakea drupacea</i>			
882.	2156	<i>Hakea elliptica</i> (Oval-leaf Hakea)			
883.	2159	<i>Hakea falcata</i>			
884.	2160	<i>Hakea ferruginea</i>			
885.	2162	<i>Hakea florida</i>			
886.	2169	<i>Hakea lasiantha</i> (Woolly Flowered Hakea)			
887.	12229	<i>Hakea lasiocarpa</i>		P3	
888.	2171	<i>Hakea laurina</i> (Pincushion Hakea, Kodjet)			
889.	2174	<i>Hakea linearis</i>			
890.	2175	<i>Hakea lissocarpa</i> (Honey Bush)			
891.	2179	<i>Hakea marginata</i>			
892.	2187	<i>Hakea nitida</i> (Frog Hakea)			
893.	2190	<i>Hakea oldfieldii</i>		P3	
894.	2191	<i>Hakea oleifolia</i> (Dungyn)			
895.	16909	<i>Hakea pandanicaarpa</i> subsp. <i>crassifolia</i>			
896.	2197	<i>Hakea prostrata</i> (Harsh Hakea)			
897.	2203	<i>Hakea ruscifolia</i> (Candle Hakea)			
898.	2212	<i>Hakea sulcata</i> (Furrowed Hakea)			
899.	2214	<i>Hakea trifurcata</i> (Two-leaf Hakea)			
900.	16640	<i>Hakea tuberculata</i>			
901.	2215	<i>Hakea undulata</i> (Wavy-leaved Hakea)			
902.	2216	<i>Hakea varia</i> (Variable-leaved Hakea)			
903.	2222	<i>Isopogon attenuatus</i>			
904.	2223	<i>Isopogon axillaris</i>			
905.	2224	<i>Isopogon baxteri</i> (Stirling Range Coneflower)			
906.	16719	<i>Isopogon buxifolius</i> var. <i>obovatus</i>		P3	
907.	2226	<i>Isopogon cuneatus</i> (Coneflower)			
908.	16880	<i>Isopogon formosus</i> subsp. <i>formosus</i>			
909.	2233	<i>Isopogon longifolius</i>			
910.	45553	<i>Isopogon spathulatus</i>			
911.	2238	<i>Isopogon teretifolius</i> (Nodding Coneflower)			
912.	2240	<i>Isopogon trilobus</i> (Barrel Coneflower)			
913.	2242	<i>Isopogon uncinatus</i>		T	
914.	2244	<i>Lambertia echinata</i> (Prickly Honeysuckle)			
915.	14878	<i>Lambertia echinata</i> subsp. <i>citrina</i>			
916.	2245	<i>Lambertia ericifolia</i> (Heath-leaved Honeysuckle)			
917.	2246	<i>Lambertia fairallii</i> (Fairall's Honeysuckle)		T	
918.	2248	<i>Lambertia inermis</i> (Chittick, Djidiok)			
919.	16870	<i>Lambertia inermis</i> var. <i>drummondii</i>			
920.	16871	<i>Lambertia inermis</i> var. <i>inermis</i>			
921.	2253	<i>Lambertia uniflora</i>			
922.	2262	<i>Persoonia elliptica</i> (Spreading Snottygobble)			
923.	2267	<i>Persoonia longifolia</i> (Snottygobble)			
924.	2273	<i>Persoonia saccata</i> (Snottygobble)			
925.	2277	<i>Persoonia striata</i>			
926.	2287	<i>Petrophile carduacea</i>		P2	
927.	2292	<i>Petrophile divaricata</i>			
928.	2293	<i>Petrophile diversifolia</i>			
929.	14443	<i>Petrophile ericifolia</i> subsp. <i>ericifolia</i>			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
930.	20605	<i>Petrophile filifolia</i> subsp. <i>filifolia</i>			
931.	2300	<i>Petrophile longifolia</i> (Long Leaved Cone Bush)			
932.	2302	<i>Petrophile media</i>			
933.	2304	<i>Petrophile phyllicoides</i>			
934.	2306	<i>Petrophile rigida</i>			
935.	2309	<i>Petrophile serruriae</i>			
936.	20053	<i>Petrophile squamata</i> subsp. <i>northern</i> (J. Monks 40)			
937.	17765	<i>Petrophile squamata</i> subsp. <i>squamata</i>			
938.	2313	<i>Petrophile teretifolia</i>			
939.	2316	<i>Stirlingia latifolia</i> (Blueboy)			
940.	2318	<i>Stirlingia tenuifolia</i>			
941.	2322	<i>Synaphea favosa</i>			
942.	16859	<i>Synaphea incurva</i>		P1	
943.	16860	<i>Synaphea media</i>			
944.	12911	<i>Synaphea obtusata</i>			
945.	2324	<i>Synaphea petiolaris</i> (Synaphea)			
946.	16864	<i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>			
947.	2326	<i>Synaphea polymorpha</i> (Albany Synaphea, Pinda)			
948.	2328	<i>Synaphea reticulata</i>			
949.	2329	<i>Synaphea spinulosa</i>			
Pteridaceae					
950.	31	<i>Cheilanthes austrotenuifolia</i>			
Racopilaceae					
951.	32480	<i>Racopilum cuspidigerum</i> var. <i>convolutaceum</i>			
Ranunculaceae					
952.	2929	<i>Clematis pubescens</i> (Common Clematis)			
Restionaceae					
953.	17687	<i>Chaetanthus tenellus</i>			
954.	17705	<i>Chordifex abortivus</i>		T	
955.	17832	<i>Chordifex capillaceus</i>			
956.	17828	<i>Chordifex isomorphus</i>			
957.	17689	<i>Chordifex laxus</i>			
958.	17830	<i>Chordifex leucoblepharus</i>		P2	
959.	17829	<i>Chordifex ornatus</i>		P2	
960.	17834	<i>Chordifex sphacelatus</i>			
961.	17692	<i>Cytogonidium leptocarpoides</i>			
962.	15831	<i>Desmocladius castaneus</i>			
963.	46358	<i>Desmocladius confertospicatus</i>			
964.	17691	<i>Desmocladius fasciculatus</i>			
965.	16595	<i>Desmocladius flexuosus</i>			
966.	46362	<i>Desmocladius lateriflorus</i>			
967.	46363	<i>Desmocladius laxiflorus</i>			
968.	1067	<i>Empodisma gracillimum</i>			
969.	1070	<i>Hypolaena exsulca</i>			
970.	1071	<i>Hypolaena fastigiata</i>			
971.	19918	<i>Hypolaena grandiuscula</i>			
972.	1075	<i>Lepidobolus preissianus</i>			
973.	46380	<i>Leptocarpus kraussii</i>			
974.	1080	<i>Leptocarpus scariosus</i>			
975.	1082	<i>Leptocarpus tenax</i> (Slender Twine Rush)			
976.	46383	<i>Leptocarpus tephrrinus</i>			
977.	1084	<i>Lepyrodia drummondiana</i>			
978.	1087	<i>Lepyrodia hermaphrodita</i>			
979.	1089	<i>Lepyrodia monoica</i>			
980.	1090	<i>Lepyrodia muirii</i>			
981.	1092	<i>Loxocarya cinerea</i>			
982.	15827	<i>Taraxis grossa</i>			
983.	17684	<i>Tremulina tremula</i>			
984.	17680	<i>Tyrbastes glaucescens</i>			
Rhamnaceae					
985.	4804	<i>Cryptandra nutans</i>			
986.	4809	<i>Cryptandra pungens</i>			
987.	16195	<i>Cryptandra wilsonii</i>			
988.	4816	<i>Pomaderris grandis</i> (Large Pomaderris)		P4	
989.	4828	<i>Spyridium globulosum</i> (Basket Bush)			
990.	14355	<i>Spyridium majoranifolium</i>			
991.	14813	<i>Spyridium riparium</i>		P2	
992.	19704	<i>Stenanthemum sublineare</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
993.	33438 <i>Trymalium odoratissimum</i> subsp. <i>trifidum</i>		P2	
Rubiaceae				
994.	7344 <i>Opercularia acolyantha</i> (Esperance Dog Weed)		P3	
995.	7348 <i>Opercularia hispidula</i> (Hispid Stinkweed)			
996.	18255 <i>Opercularia vaginata</i> (Dog Weed)			
Rutaceae				
997.	4404 <i>Boronia albiflora</i>			
998.	4411 <i>Boronia crassifolia</i>			
999.	4413 <i>Boronia crenulata</i> (Aniseed Boronia)			
1000.	11503 <i>Boronia crenulata</i> var. <i>crenulata</i>			
1001.	4416 <i>Boronia denticulata</i>			
1002.	4422 <i>Boronia gracilipes</i> (Karri Boronia)			
1003.	4428 <i>Boronia megastigma</i> (Scented Boronia)			
1004.	4430 <i>Boronia nematophylla</i>			
1005.	4436 <i>Boronia pulchella</i> (Pink Boronia)			
1006.	4438 <i>Boronia ramosa</i>			
1007.	4440 <i>Boronia scabra</i> (Rough Boronia)			
1008.	16639 <i>Boronia scabra</i> subsp. <i>scabra</i>			
1009.	4441 <i>Boronia spathulata</i> (Boronia)			
1010.	4446 <i>Boronia tetrandra</i> (Yellow Boronia)			
1011.	4448 <i>Chorilaena quercifolia</i> (Chorilaena)			
1012.	11306 <i>Crowea angustifolia</i> var. <i>angustifolia</i>			
1013.	17729 <i>Crowea angustifolia</i> var. <i>platyphylla</i>			
1014.	4490 <i>Muiriantha hassellii</i>		P4	
1015.	18547 <i>Rhadinothamnus anceps</i>			
1016.	18548 <i>Rhadinothamnus rudis</i> subsp. <i>amblycarpus</i>			
1017.	18544 <i>Rhadinothamnus rudis</i> subsp. <i>rudis</i>			
Santalaceae				
1018.	10765 <i>Exocarpos sparteus</i> (Broom Ballart, Djuk)			
1019.	2341 <i>Leptomeria axillaris</i>			
1020.	2345 <i>Leptomeria ericoides</i>			
1021.	2350 <i>Leptomeria pauciflora</i> (Sparse-flowered Currant Bush)			
1022.	2353 <i>Leptomeria scrobiculata</i>			
1023.	2355 <i>Leptomeria squarrulosa</i>			
Sapindaceae				
1024.	4757 <i>Dodonaea ceratocarpa</i>			
Schizaeaceae				
1025.	24 <i>Schizaea fistulosa</i> (Narrow Comb Fern)			
Scrophulariaceae				
1026.	7292 <i>Myoporum oppositifolium</i> (Twin-leaf Myoporum)			
1027.	7295 <i>Myoporum tetrandrum</i> (Boobialla)			
Sematophyllaceae				
1028.	32433 <i>Sematophyllum homomallum</i>			
Solanaceae				
1029.	11555 <i>Anthocercis viscosa</i> subsp. <i>caudata</i>			
1030.	11505 <i>Anthocercis viscosa</i> subsp. <i>viscosa</i>			
1031.	7022 <i>Solanum nigrum</i> (Black Berry Nightshade)	Y		
Stylidiaceae				
1032.	7676 <i>Levenhookia pusilla</i> (Midget Stylewort)			
1033.	39881 <i>Stylidium acuminatum</i> subsp. <i>meridionale</i>			
1034.	7678 <i>Stylidium adnatum</i> (Common Beaked Triggerplant)			
1035.	7684 <i>Stylidium amoenum</i> (Lovely Triggerplant)			
1036.	7686 <i>Stylidium articulatum</i> (Stout Triggerplant)		P2	
1037.	7687 <i>Stylidium assimile</i> (Bronze-leaved Triggerplant)			
1038.	7696 <i>Stylidium calcaratum</i> (Book Triggerplant)			
1039.	7699 <i>Stylidium carnosum</i> (Fleshy-leaved Triggerplant)			
1040.	7707 <i>Stylidium corymbosum</i> (Whitecaps)			
1041.	12057 <i>Stylidium corymbosum</i> var. <i>corymbosum</i>			
1042.	7708 <i>Stylidium crassifolium</i> (Thick-leaved Triggerplant)			
1043.	17893 <i>Stylidium daphne</i>		P2	
1044.	7718 <i>Stylidium diversifolium</i> (Touch-me-not)			
1045.	20691 <i>Stylidium gloeophyllum</i>		P4	
1046.	7735 <i>Stylidium hirsutum</i> (Hairy Triggerplant)			
1047.	7738 <i>Stylidium imbricatum</i> (Tile Leaved Triggerplant)			
1048.	7745 <i>Stylidium junceum</i> (Reed Triggerplant)			

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1049.	12850	<i>Stylidium keigheryi</i>		P2	
1050.	7757	<i>Stylidium luteum</i> (Yellow Triggerplant)			
1051.	44181	<i>Stylidium oreophilum</i>		P2	
1052.	7774	<i>Stylidium piliferum</i> (Common Butterfly Triggerplant)			
1053.	7777	<i>Stylidium preissii</i> (Lizard Triggerplant)			
1054.	7785	<i>Stylidium repens</i> (Matted Triggerplant)			
1055.	7794	<i>Stylidium rupestre</i> (Rock Triggerplant)			
1056.	7796	<i>Stylidium scandens</i> (Climbing Triggerplant)			
1057.	7798	<i>Stylidium schoenoides</i> (Cow Kicks)			
1058.	7800	<i>Stylidium spinulosum</i> (Topsy-turvy Triggerplant)			
1059.	7802	<i>Stylidium squamosotuberosum</i> (Fleshy-rhizomed Trigger Plant)			
1060.	45593	<i>Stylidium tenue</i> subsp. <i>tenue</i> (Little Fountain Triggerplant)			

Thymelaeaceae

1061.	5231	<i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)
1062.	5234	<i>Pimelea brachyphylla</i>
1063.	11282	<i>Pimelea brevifolia</i> subsp. <i>brevifolia</i>
1064.	5239	<i>Pimelea clavata</i>
1065.	5243	<i>Pimelea ferruginea</i>
1066.	5249	<i>Pimelea hispida</i> (Bristly Pimelea)
1067.	5251	<i>Pimelea imbricata</i>
1068.	11533	<i>Pimelea imbricata</i> var. <i>imbricata</i>
1069.	11472	<i>Pimelea lehmanniana</i> subsp. <i>lehmanniana</i>
1070.	5255	<i>Pimelea longiflora</i>
1071.	5259	<i>Pimelea preissii</i>
1072.	18117	<i>Pimelea rosea</i> subsp. <i>rosea</i>
1073.	5268	<i>Pimelea sulphurea</i> (Yellow Banjine)
1074.	5269	<i>Pimelea sylvestris</i>
1075.	5270	<i>Pimelea tinctoria</i>

Typhaceae

1076.	99	<i>Typha orientalis</i> (Bulrush, Cumbungi)
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Urticaceae

1077.	1762	<i>Parietaria debilis</i> (Pellitory)
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Violaceae

1078.	12007	<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>
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Xanthorrhoeaceae

1079.	1280	<i>Chamaescilla corymbosa</i> (Blue Squill)
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Xyridaceae

1080.	1149	<i>Xyris lacera</i>
1081.	1150	<i>Xyris lanata</i>

Zamiaceae

1082.	85	<i>Macrozamia riedlei</i> (Zamia, Djiridji)
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Conservation Codes

T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 3
4 - Priority 4
5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

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Appendix D: Threatened and Priority Flora Species Likelihood of Occurrence within Survey Area

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Table D.1: Likelihood of occurrence (post-survey) of conservation significant flora previously recorded within 20 km of the survey area. ^Status: refer to Appendix C. ^^Source: NM = Nature Map, PMST = Protected Matters Search Tool, TPFL = DBCA Threatened and Priority Flora database, WAHERB = WA Herbarium.

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Andersonia pinaster</i> [Ericaceae]	V	VU	T	NM	Erect, slender shrub, 0.2-0.6 m high. Flowers blue, Jul to Nov. Grey/white sand, sandy clay, granite. Winter-wet slopes, outcrops, hills.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Banksia anatona</i> [Proteaceae]	CR	CR	T	NM, WAHERB	Upright, non-lignotuberous shrub, to 5 m high. Flowers yellow, Jan to Mar. Grey sand over gravelly shale, rocky silty clay loam. Lower slopes of ranges	Highly Unlikely, Record in proximity is a translocation site, outside of species natural range	Considered adequate, species outside its natural range
<i>Banksia brownii</i> [Proteaceae]	E	EN	T	PMST, NM, TPFL, WAHERB	Bushy, non-lignotuberous shrub or tree (small), 1-6 m high. Flowers cream & brown/orange-red, Mar to Jul. Sand over laterite, gravel, loam over granite. In gullies.	Unlikely. Some suitable habitat, but heavily dieback impacted. One record in vicinity is a translocation site	Considered adequate, dieback impacts and not expected to occur
<i>Banksia montana</i> [Proteaceae]	E	EN	T	NM	Erect, non-lignotuberous shrub, 0.9-2.5 m high. Flowers yellow-orange, Jan to Feb. Sandy clay, rocky soils.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Banksia pseudoplumosa</i> [Proteaceae]	E	EN	T	PMST	Non-lignotuberous shrub, to 1.8 m high. Flowers Nov to Dec. Gravelly soils.	Unlikely, south of natural range	Considered adequate, species outside its natural range
<i>Banksia verticillata</i> [Proteaceae]	V	VU	T	PMST, NM	Non-lignotuberous shrub or tree (rarely), 1.3-6 m high. Flowers yellow-orange, Jan to Apr. Sandy loam. On or beside granite outcrops	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Caladenia granitora</i> [Orchidaceae]	E	EN	T	PMST, NM	Tuberous, perennial, herb, 0.2-0.35 m high. Flowers cream & white & red, Oct to Nov. Shallow soil crevices on granite. Coastal areas.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Chordifex abortivus</i> [Restionaceae]	E	EN	T	PMST, NM, TPFL, WAHERB	Rhizomatous, erect perennial, herb, to 0.5 m high. Flowers brown, Sep to Oct. Sand. Low rises & undulating areas.	Possible. Recorded in Australian bluegum plantations property near the survey area in similar vegetation.	No survey limitations identified and is a relatively conspicuous plant likely to be detected

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Conostylis misera</i> [Haemodoraceae]	E	EN	T	PMST, NM, TPFL, WAHERB	Rhizomatous, tufted perennial, grass-like or herb, 0.05-0.18 m high. Flowers yellow, Oct to Nov. White or grey sand, sandy loam. Winter-wet flats.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Darwinia oxylepis</i> [Myrtaceae]	E	EN	T	PMST	Upright, dense shrub, 0.6-1.5 m high. Flowers red, Aug to Nov. Stony, peaty sand. Rocky gullies.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Darwinia wittwerorum</i> [Myrtaceae]	E	EN	T	PMST	Erect, single-stemmed shrub, 0.3-1 m high. Flowers green/white & pink, Sep to Dec. Clay loam, sandy clay. Roadsides, slopes.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Daviesia obovata</i> [Fabaceae]	E	EN	T	PMST	Erect, slender shrub, 0.7-1.5 m high. Flowers yellow & black, Sep to Oct. Stony loam, sandy loam. Hillslopes, outcrops.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Daviesia ovata</i> [Fabaceae]	E	CR	T	NM, TPFL, WAHERB	Erect or spreading shrub, 0.4-1.8 m high. Flowers yellow/orange & red/brown, Sep to Nov. Sand over granite. Rocky steep slope	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Drakaea micrantha</i> [Orchidaceae]	V	VU	T	PMST	Tuberous, perennial, herb, 0.15-0.3 m high. Flowers red & yellow, Sep to Oct. White-grey sand. Usually found in cleared fire breaks or open sandy patches that have been disturbed, and where competition from other plants has been removed. Occurs in infertile grey sands, in <i>Banksia</i> , Jarrah and <i>Allocasuarina fraseriana</i> woodland or forest. It is often found under thickets of <i>Kunzea ericifolia</i> with <i>Paracaleana nigrita</i> and other <i>Drakaea</i> species.	Unlikely, well east of known range	Considered adequate, species outside its natural range

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Gastrolobium humile</i> [Fabaceae]	E	EN	T	PMST	Low shrub. Known from approximately 2,510 mature individuals from 3 subpopulations. Approx. 2,400 mature individuals occur in Subpopulation 1 located NE of Pallinup River within private property. Subpopulation 2 occurs SW of Pallinup River on Shire road reserve and private property. Subpopulation 3 occurs within private property on Yarraweyah Falls	Unlikely, south of known range	Considered adequate, species outside its natural range
<i>Isopogon uncinatus</i> [Proteaceae]	E	EN	T	PMST, NM	Tufted spreading or prostrate, non-lignotuberous shrub, 0.05-0.4 m high. Flowers yellow/cream, Oct to Nov. Loam or sand on granite, peaty sand. Swampy depressions, hillslopes.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Kennedia glabrata</i> [Fabaceae]	V	VU	T	PMST	Prostrate shrub, 0.05-0.5 m high, to 5 m wide. Flowers red, Aug to Nov. Soil pockets, sandy soils. Granite outcrops.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Lambertia fairallii</i> [Proteaceae]	E	EN	T	NM	Dense, erect, non-lignotuberous shrub, to 1.5 m high. Flowers yellow, May or Sep or Nov or Jan. Skeletal rocky soils, sandy or silty clay over shalestone or quartzite. Low to mid slopes of range, edge of breakaway.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Persoonia micranthera</i> [Proteaceae]	E	EN	T	PMST	Decumbent to prostrate shrub, 0.1-0.4 m high. Flowers yellow, Aug. Sandy, stony soils. Summit of plateau.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Sphenotoma drummondii</i> [Ericaceae]	E	EN	T	PMST	Tufted shrub, 0.15-0.5 m high. Flowers white, Sep to Dec. Stony or shallow soils over granite or quartzite. Steep rocky slopes, crevices of rocks.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Verticordia carinata</i> [Myrtaceae]	V	VU	T	PMST	Open, slender shrub, 0.8-1 m high. Flowers pink-red, Mar to May. Grey sand over	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
					sandstone.		
<i>Lasiopetalum</i> sp. Wellstead (K.A. Shepherd & C.F. Wilkins KS 1650) [Malvaceae]			P1	NM	Erect shrub to 0.4 m high. Flowers creamy white with a blush of pink, deep reddish brown at base, Aug to Oct. Flat disturbed road verge in pale brown loamy sand, clay loam.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) [Ericaceae]			P1	NM, WAHERB	Very low shrub to 10cm x 15cm wide. Flowers white, Dec to Jan. Top of low rise, dry, yellow sand over laterite. On laterite rise. Only two records found in Florabase; first record located in Hassell National Park along disused track (S of highway) which intersects with South Coast Highway, 4.7km east of Drawbin Road, east of Manypeaks; second record 28km east of Manypeaks.	Recorded in survey area	Adequate, recorded
<i>Prostanthera verticillaris</i> [Lamiaceae]			P1	NM	Openly branched, spreading shrub, 0.5-2 m high, 0.6-3 m wide. Flowers blue-purple/white, Sep to Oct. Granitic loam. Granite outcrops.	Recorded in context area	Adequate, recorded
<i>Synaphea incurva</i> [Proteaceae]			P1	NM, TPFL, WAHERB	Clumped, spreading shrub. Flowers yellow, Sep to Nov. Gravelly loam, sandy soils. Slopes.	Recorded in survey area	Adequate, recorded
<i>Agrostocrinum scabrum</i> subsp. <i>littorale</i> [Hemerocallidaceae]			P2	NM	Rhizomatous, perennial, herb, to 0.15 m high. Flowers blue, Oct to Nov. Shallow granite loams. Coastal slopes.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Chamelaucium</i> sp. Cape Riche (C.A. Gardner 2153) [Myrtaceae]			P2	NM	Erect compact shrub to 1.5 m high. Flowers white-cream, pink, Oct to Nov. Road verge, yellow-grey sand, white sand over clay, hillside. Dry brown loam, clay filled depression over limestone.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Chamelaucium</i> sp. Waychinicup (D. Davidson s.n. PERTH 01486527) [Myrtaceae]			P2	NM, TPFL, WAHERB	Weeping shrub to 1.5 m high. Flowers cream-white, green-yellow, Aug to Dec. Slope. Sand/loam/clay soil over granite, riparian, rocky brown peaty loam. Rock gully.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Chordifex leucoblepharus</i> [Restionaceae]			P2	NM, TPFL, WAHERB	Rhizomatous, perennial, herb, ca 0.4 m high. Flowers brown, Nov to Dec. Sand. Dry heath.	Likely, suitable habitat present	No survey limitations identified. However, is a small inconspicuous sedge
<i>Chordifex ornatus</i> [Restionaceae]			P2	NM	Rhizomatous, perennial, herb. Flowers brown, Oct. Grey-white sand, sandy clay. Sandy rises.	Likely, suitable habitat present	No survey limitations identified. However, is a small inconspicuous sedge
<i>Gyrostemon thesioides</i> [Gyrostemonaceae]			P2	NM	Straggling, decumbent shrub, to 0.7 m high. Flowers red-orange-yellow/yellow-green, Nov. Sand over limestone. Consolidated coastal dunes.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Leucopogon bracteolaris</i> [Ericaceae]			P2	NM, TPFL	Shrub, 0.25-1 m high. Flowers white, Feb or May or Jul or Oct. Stony sand, gravelly loam.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Petrophile carduacea</i> [Proteaceae]			P2	NM, WAHERB	Non-lignotuberous shrub, 1-1.5 m high. Flowers yellow, Sep to Oct. Gravelly soils.	Recorded in survey area	Adequate, recorded
<i>Scaevola xanthina</i> [Goodeniaceae]			P2	NM	Spreading prostrate shrub to 1.5m across, hairy leaves. Flowers yellow, Sept to Dec. Mid-slope, sand, loam, clay soil on granite. Gully, granite rocks.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Spyridium riparium</i> [Rhamnaceae]			P2	NM, TPFL	Erect shrub, 0.8-1.5 m high. Flowers white/cream, Jul to Oct. Sandy or gravelly soils over laterite. River banks, slopes.	Recorded in survey area	Adequate, recorded

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Stenanthemum sublineare</i> [Rhamnaceae]			P2	NM, WAHERB	Erect shrub, to 0.1 m high. Flowers green, Oct to Dec. Littered white sand. Coastal plain.	Recorded in survey area	Adequate, recorded
<i>Stylidium articulatum</i> [Stylidiaceae]			P2	NM	Rosetted perennial, herb, 0.15-0.25 m high, Leaves erect to spreading, oblanceolate, 3-8 cm long, 5-14 mm wide, apex subacute to acute, glabrous. Scape glandular in upper half. Inflorescence paniculate. Flowers pink, Nov to Dec. Sandy loam, granite. Hills, coastal heath.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Stylidium daphne</i> [Stylidiaceae]			P2	NM, TPFL, WAHERB	Rosetted perennial, herb, 0.15-0.45 m high, Leaves tufted, linear to narrowly oblanceolate, 1-4.5 cm long, 0.5-2 (-3) mm wide, apex subacute, margin entire, hoary. Scape mostly glabrous, inflorescence axis sparingly glandular. Inflorescence racemose. Flowers yellow, Dec. Grey to white sand or brown sandy clay loam over laterite. Gentle slopes or winter wet depressions. Mallee or Melaleuca shrubland.	Recorded in survey area	Adequate, recorded
<i>Stylidium keigheryi</i> [Stylidiaceae]			P2	NM	Rosetted perennial, herb, 0.04-0.25 m high, Leaves narrowly oblanceolate to oblanceolate, 0.4-1.2 cm long, 0.8-1.5 mm wide, apex subacute, margin entire, glabrous. Scape glabrous. Flowers pink, Feb to Apr. Clay loam, peaty sand. Mountain peaks and slopes. Heath.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Stylidium oreophilum</i> [Stylidiaceae]			P2	NM	Erect herb to 50 cm high with numerous stems arising from toward the base of the plant, distinct lignotuber not evident, thick adventitious roots present near base of plant; corolla lobes paired laterally, deep pink to purplish pink outer and pinkish red inner throat markings and a creamy white throat;	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
					throat appendages absent. Flowers Nov to Dec. Sandy clay loam, rocky ridge, in moist and rocky sandstone crevices. Granite rocks.		
<i>Andersonia setifolia</i> [Ericaceae]			P3	NM, TPFL, WAHERB	Decumbent to erect, cushion-forming shrub, 0.05-0.15 m high. Flowers red/white, Jun to Oct. Sandy & gravelly soils. Hillslopes & breakaways.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Calectasia obtusa</i> [Dasypogonaceae]			P3	NM	Erect, low herb, 0.25-0.4 m high, to 0.2; with aerial roots. Flowers blue, Aug to Sep. Sand, clay loam, gravel, laterite. Flats.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Calothamnus robustus</i> [Myrtaceae]			P3	NM, TPFL, WAHERB	Erect, compact shrub, 0.5-1.5 m high. Flowers red, Feb or Jul or Sep to Nov. Rocky quartzite or granitic soils. Low hills.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Calytrix pulchella</i> [Myrtaceae]			P3	NM, WAHERB	Shrub, 0.3-0.7(-1) m high. Flowers pink, Aug to Nov. Grey or white sand over laterite. Ridges, flats.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Centrolepis milleri</i> [Centrolepidaceae]			P3	NM	Erect annual to 5cm tall. Observed in post-fire emergence experiment. Leaves mostly embedded in white sand. No serrated edges to bracts. Flowers Sep to Oct. Occurs on edges of firebreak in pale grey brown sandy clay, white sand	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Chorizema carinatum</i> [Fabaceae]			P3	NM	Erect or spreading shrub, 0.1-0.6 m high. Flowers yellow, Oct to Dec. Sand, sandy clay.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
							plant likely to be detected
<i>Gonocarpus trichostachyus</i> [Haloragaceae]			P3	NM, WAHERB	Erect to spreading perennial, herb, 0.05-0.17 m high. Fl. red-purple, Sep to Oct. Sandy soils.	Recorded in survey area	Adequate, recorded
<i>Goodenia</i> sp. South Coast (A.R. Annels ARA1846) [Goodeniaceae]			P3	NM	Slender, erect herb, 0.3-0.45 m high. Flowers blue, Nov to Dec. Gravelly loams, sandy clays. Edge granite outcrop, roadside.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Hakea lasiocarpa</i> [Proteaceae]			P3	NM, WAHERB	Erect shrub, to 6 m high. Flowers white, May to Jul. Sandy loam soils, organic litter over sand, clay or gravel. Hill tops, valleys.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Hakea oldfieldii</i> [Proteaceae]			P3	NM, WAHERB	Open, straggling shrub, up to 2.5 m high. Flowers white-cream/yellow, Aug to Oct. Red clay or sand over laterite. Seasonally wet flats.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Isopogon buxifolius</i> var. <i>obovatus</i> [Proteaceae]			P3	NM	Upright shrub, (0.3-)0.6-1.5 m high. Flowers pink, May or Jul to Oct. Sandy soils, gravelly loam or clay.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Lasiopetalum</i> sp. Denmark (B.G. Hammersley 2012) [Malvaceae]			P3	NM, WAHERB	Erect slender shrub to 1.5m. Flowers creamy white to faintly tinged pink, white-greenish around anthers, Sept to Nov. Gravel loam, base of granite outcrop. Upper slope, coarse sand, grey sand, laterite, ridge. Brown clayey sand.	Unlikely, east of species range	Considered adequate, species outside its natural range
<i>Latrobea recurva</i> [Fabaceae]			P3	NM, WAHERB	Erect or procumbent, spreading shrub, 0.3-1 m high. Grey or white sand over laterite.	Recorded in survey area	Adequate, recorded

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Laxmannia grandiflora</i> subsp. <i>stirlingensis</i> [Asparagaceae]			P3	NM, WAHERB	Tall, slender, rambling, stilt-rooted perennial, herb, to 0.22 m high. Fl. white, Sep to Nov. White sand, sandy clay. Winter-wet locations.	Recorded in context area	Adequate, recorded
<i>Leucopogon altissimus</i> [Ericaceae]			P3	NM, WAHERB	Erect shrub to 3m in height. Inflorescence pendulous with pink/white cream flowers, Aug to Oct. Slope, grey sandy loam over granite. Sandy loam soil. Base of large granite boulders. Upper slope, outcropping granite, sandy surface soils.	Recorded in survey area	Adequate, recorded
<i>Melaleuca micromera</i> [Myrtaceae]			P3	NM	Shrub, 1-4 m high. Flowers yellow, Sep to Oct. Gravelly sandy loam or clay.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Opercularia acolytantha</i> [Rubiaceae]	Extinct		P3	NM	Perennial, herb or shrub, 0.08-0.1 m high, presumed extinct.	Possible, habitat not well known	No survey limitations identified. However, field botanist is not familiar with species.
<i>Poa billardierei</i> [Poaceae]			P3	NM	Tussock grass to 75 cm tall. Golden fruit heads. Flowers Sep to Nov. Drift sands, beach sand, white sand, unstable foredunes.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Pultenaea calycina</i> subsp. <i>calycina</i> [Fabaceae]			P3	NM, WAHERB	Erect compact shrub 1.5m x 2m but often smaller. Flowers have red-brown calyx giving plant red-brown appearance when covered with numerous unopened flowers, Oct. Flat plain, dry gravelly, yellow sandy clay. Gentle slope, grey clay loam. Flat, orange brown clay with laterite pebbles.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Pultenaea pinifolia</i> [Fabaceae]			P3	NM	Erect, slender shrub, 1-3 m high. Flowers yellow-orange, Oct to Nov. Loam or clay. Floodplains, swampy areas.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
							plant likely to be detected
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) [Cyperaceae]			P3	NM, WAHERB	Tussock sedge/herb to 40 cm. Flowers Sep to Nov. Gently sloped sandplain of shallow grey sandy soil, creek beds, road reserves, valley floor.	Recorded in survey area	Adequate, recorded
<i>Acacia declinata</i> [Fabaceae]			P4	NM, WAHERB	Dense, intricately branched, prostrate, pungent shrub, 0.2-0.4 m high. Flowers yellow, Aug to Sep. Loamy or sandy clay.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Adenanthos filifolius</i> [Proteaceae]			P4	NM, WAHERB	Erect shrub, (0.2-)0.7-2(-5) m high. Flowers cream-white, May or Sep to Dec. White, grey or black peaty sand, sandy clay. Rocky hillsides (usually granite, sandstone or quartzite).	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Andersonia grandiflora</i> [Ericaceae]			P4	NM	Prostrate, cushion shrub, 0.05-0.25 m high. Flowers red-orange, Jul to Oct. Stony soils, sandy soils over sandstone. Boggy flats, rocky slopes.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Asplenium obtusatum</i> subsp. <i>northlandicum</i> [Aspleniaceae]			P4	NM	Rhizomatous, perennial, herb or (fern), 0.03-0.4 m high, pinnae 4-18 pairs, 10-40 x 7-12 mm; margins serrate; sori to 8 mm long. White sandy soil over granite. Steep valleys, pockets in granite gneiss.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Banksia acuminata</i> [Proteaceae]			P4	NM	Prostrate, lignotuberous shrub, to 0.2 m high, to 1 m wide. Flowers yellow-orange, Oct. Gravelly soils.	Unlikely, east of species' range	Considered adequate, species outside its natural range
<i>Banksia concinna</i> [Proteaceae]			P4	NM	Erect, sparsely branched, non-lignotuberous shrub, 1-3 m high. Flowers green-yellow-cream, Aug to Nov. Rocky soils. Mountain slopes	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Banksia serra</i> [Proteaceae]			P4	NM, WAHERB	Erect, slender, non-lignotuberous shrub, 1-4(-7) m high. Flowers yellow/cream-green, Jul to Sep. Gravel, sand or clay loam over laterite. Hillslopes.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Calothamnus microcarpus</i> [Myrtaceae]			P4	NM	Erect, compact or spreading shrub, 0.6-1 m high. Flowers red, Sep to Nov. Lateritic clay, sandy soils.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Drosera fimbriata</i> [Droseraceae]			P4	NM, TPFL, WAHERB	Erect tuberous, perennial, herb, 0.05-0.15 m high. Flowers white, Sep to Oct. White sand, granite.	Recorded in survey area	Adequate, recorded
<i>Eucalyptus buprestium</i> x <i>staeri</i> [Myrtaceae]			P4	NM, WAHERB	(Mallee) or tree, 1.5-4 m high. Flowers Apr. Sand or loam with lateritic gravel, sandy loam. Steep slopes.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Eucalyptus</i> x <i>missilis</i> [Myrtaceae]			P4	NM	Mallee, to 3 m high, bark smooth. Flowers yellow/cream-white, Jan to Apr. Sand over limestone or granite. Coastal sites.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Jacksonia calycina</i> [Fabaceae]			P4	NM, WAHERB	Erect or straggling shrub, (0.2-)0.4-1.4 m high. Flowers orange/yellow & red, Sep to Nov. Gravelly sandy or clayey soils. Sandplains, low rises, hillslopes.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Lysinema lasianthum</i> [Ericaceae]			P4	NM, WAHERB	Spindly shrub, 0.25-0.7 m high. Flowers white-cream, Jul to Nov. Swamps, seasonally wet areas.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected

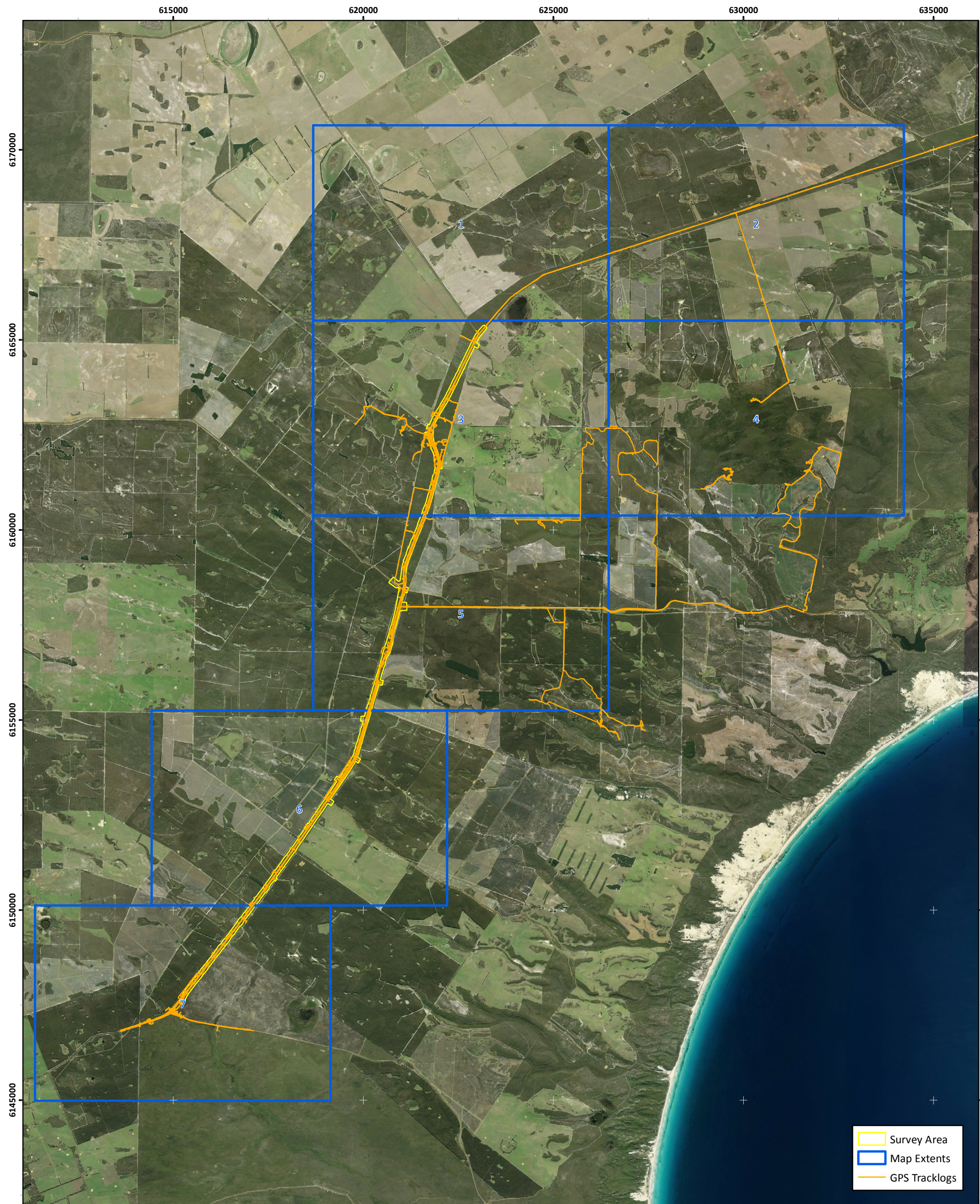
Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
<i>Marianthus granulatus</i> [Pittosporaceae]			P4	NM	Twining shrub or climber, 1-5 m high. Flowers blue, Jul or Oct to Dec. Loam over granite. Creekbeds.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Microtis pulchella</i> [Orchidaceae]			P4	NM, WAHERB	Tuberous, perennial, herb, 0.12-0.25 m high. Flowers white, Nov to Dec or Jan. Peaty sand. Winter-wet swamps.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Muiriantha hassellii</i> [Rutaceae]			P4	NM	Slender, erect shrub, 0.15-0.3 m high. Flowers yellow, Apr to Oct. Peaty sand, stony clay. Hillsides & summits.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Pomaderris grandis</i> [Rhamnaceae]			P4	NM	Erect shrub, 1-4.5 m high. Flowers white, Jul to Oct. Loam, rocky sand. Creek beds, rocky gullies.	Possible, some suitable habitat present	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Rumex drummondii</i> [Polygonaceae]			P4	NM, WAHERB	Erect perennial, herb, 0.6-0.9 m high. Winter-wet disturbed areas.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Sphenotoma</i> sp. Stirling Range (P.G. Wilson 4235) [Ericaceae]			P4	NM, WAHERB	Shrub, 0.3-2 m high. Flowers white, Aug to Dec. Skeletal soils over granite or quartzite. Rocky slopes & plateaus, gullies.	Highly unlikely, montane endemic	Considered adequate, montane endemic species not expected to occur
<i>Stylidium gloeophyllum</i> [Stylidiaceae]			P4	NM, WAHERB	Rosetted perennial, herb, 0.13-0.47 m high, Leaves tufted, oblanceolate, 1.5-7 cm long, 2-12 mm wide, apex subacute, margin entire, glandular. Scape glandular on lower portion. Inflorescence racemose. Flowers orange/yellow, Oct to Dec. Sandy clay loam, granite. Winter wet depressions, or fringing outcrops. Agonis, mallee, or Hakea shrubland	Recorded in survey area	Adequate, recorded

Taxon [family]	Status^			Source^^	Description, habitat & distribution	Likelihood of occurrence	Survey effort
	EPBC Act	BC Act	WC Act/ DBCA				
					with sedges.		
<i>Tecticornia uniflora</i> [Chenopodiaceae]			P4	NM	Prostrate perennial, herb, 0.01-0.03 m high, 0.8-1.5 m wide. Clay, sandy clay, loam. Salt lakes & creeks.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Thomasia solanacea</i> [Malvaceae]			P4	NM	Erect shrub, 0.5-3 m high. Flowers blue-purple-pink, Sep to Dec. Alluvium, sand over limestone, rocky loam. Coastal areas.	Highly unlikely, suitable habitat not present	Considered adequate, no suitable habitat
<i>Thysanotus glaucus</i> [Asparagaceae]			P4	NM	Caespitose, glaucous perennial, herb, 0.1-0.2 m high. Flowers purple, Oct to Dec or Jan to Mar. White, grey or yellow sand, sandy gravel.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Thysanotus parviflorus</i> [Asparagaceae]			P4	NM	Perennial, herb, 0.1-0.3 m high. Flowers purple, Oct to Nov. Grey sand.	Possible, some suitable habitat present	No survey limitations identified. However, is a small inconspicuous plant
<i>Verticordia harveyi</i> [Myrtaceae]			P4	NM	Slender, spindly shrub, 0.2-1.5 m high. Flowers white & pink/pink-purple, Jan to Feb or Apr. White sand. Low hills.	Possible. <i>Verticordia sieberi</i> subsp. <i>lomata</i> recorded in the survey area is metrologically similar to this species	No survey limitations identified and is a relatively conspicuous plant likely to be detected
<i>Xanthosia eichleri</i> [Apiaceae]			P4	NM, WAHERB	Erect, procumbent or decumbent shrub (subshrub), 0.05-0.25 m high, leaves simple, cuneate; umbels simple; petals shorter than sepals. Flowers white-cream, Oct to Nov. Grey sand over granite, sandy loam. Granite outcrops, jarrah/marri woodland.	Recorded in survey area	Adequate, recorded

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Appendix E: Survey Effort

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Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E: Survey Effort - Overview

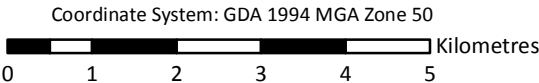


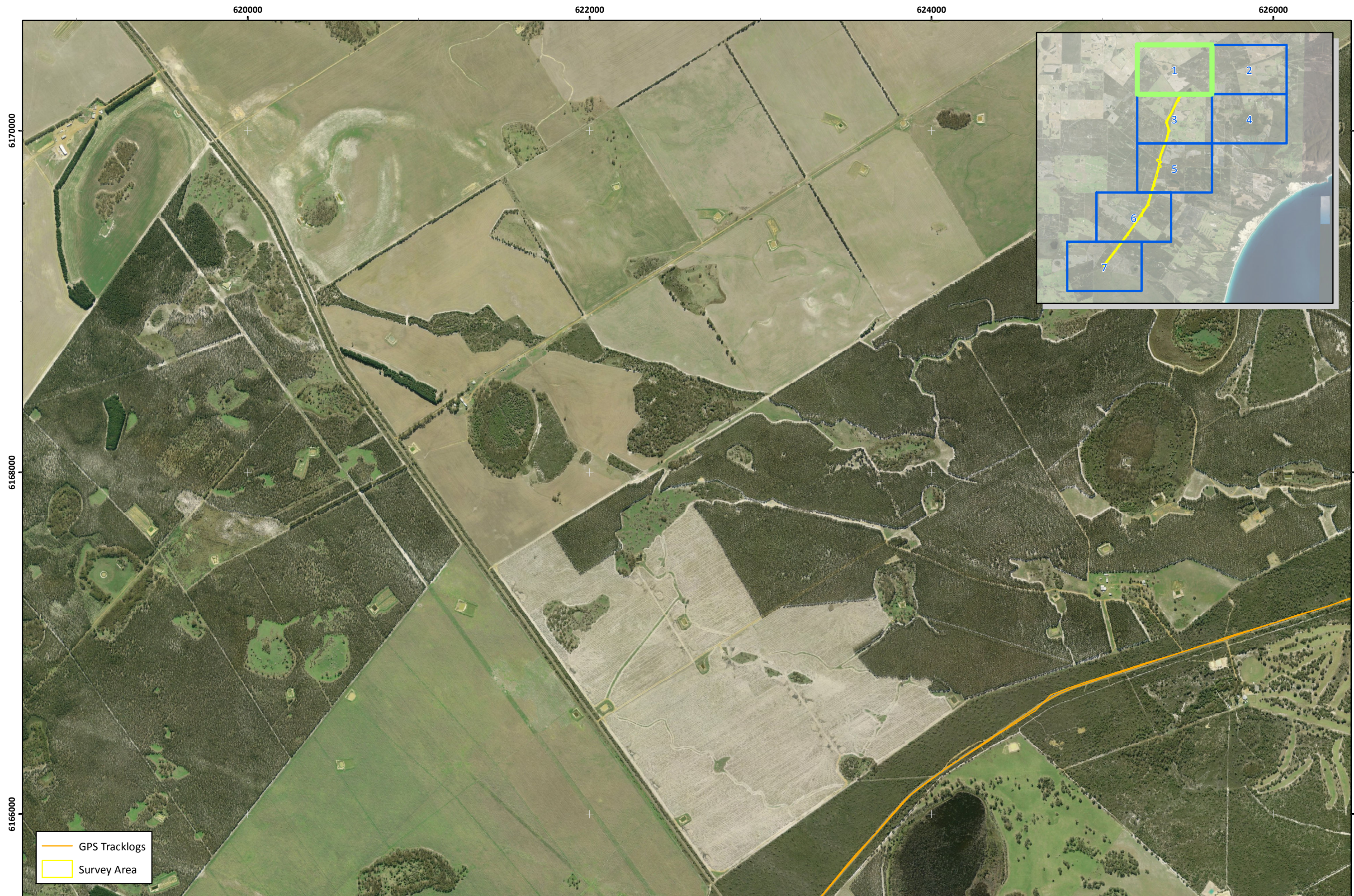
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort_Overview





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.1: Survey Effort

Author: M. Stalker

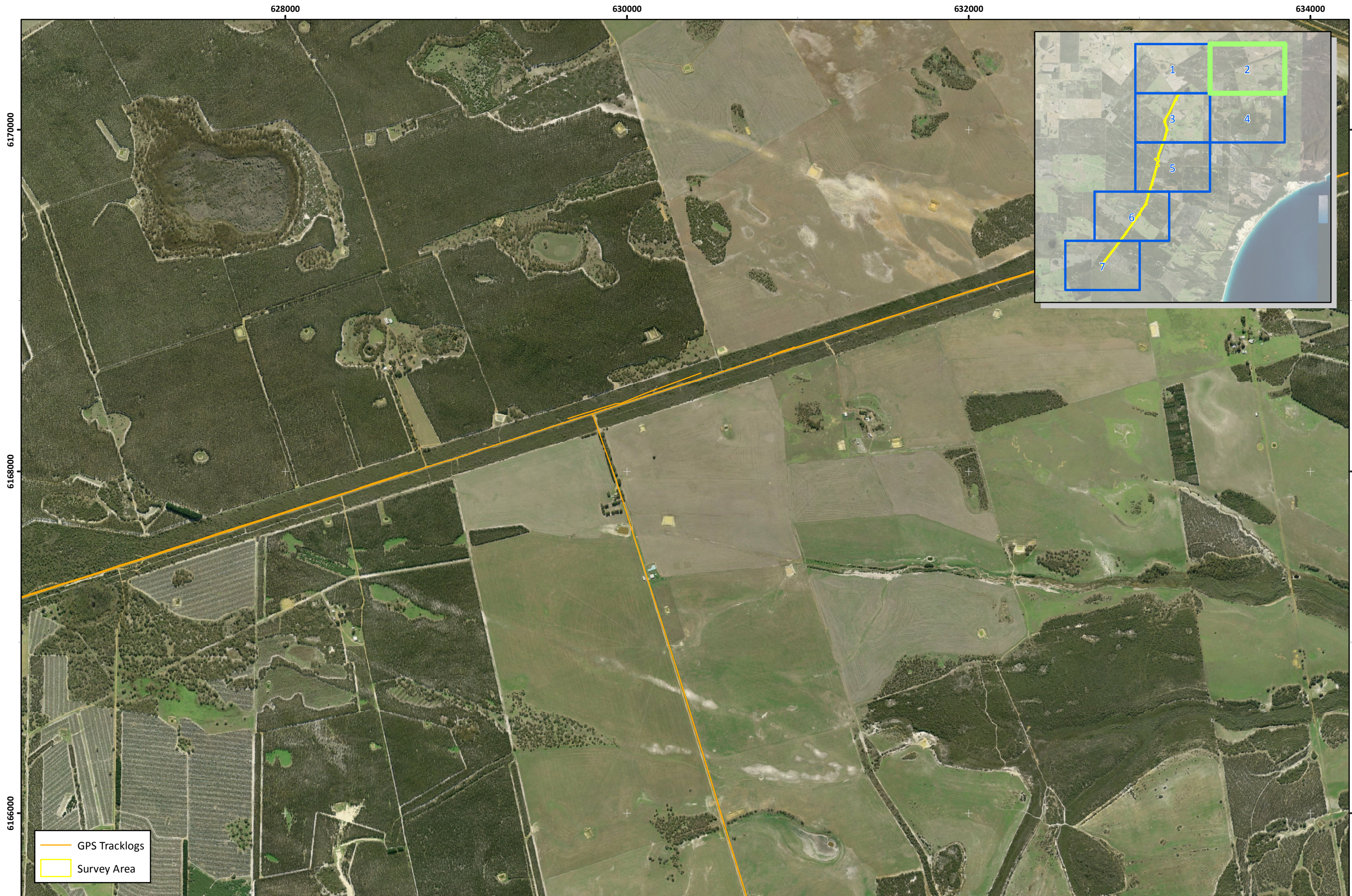
Drawn: L. Robinson

Date: 30-05-2019

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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.2: Survey Effort

Author: M. Stalker

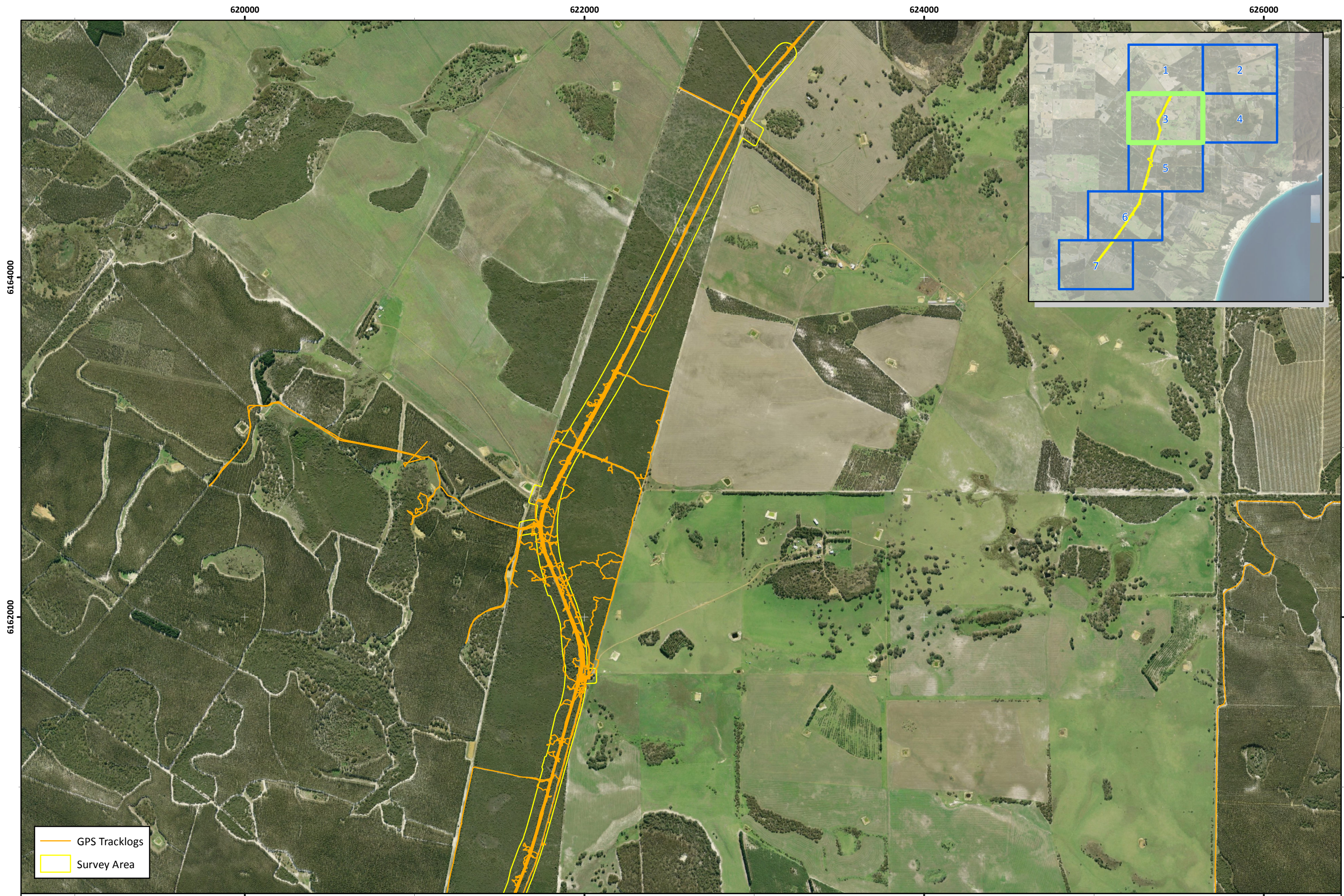
Drawn: L. Robinson

Date: 30-05-2019

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:20000 at A3
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.3: Survey Effort

Author: M. Stalker

Drawn: L. Robinson

Date: 30-05-2019

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:20000 at A3
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.4: Survey Effort

Author: M. Stalker

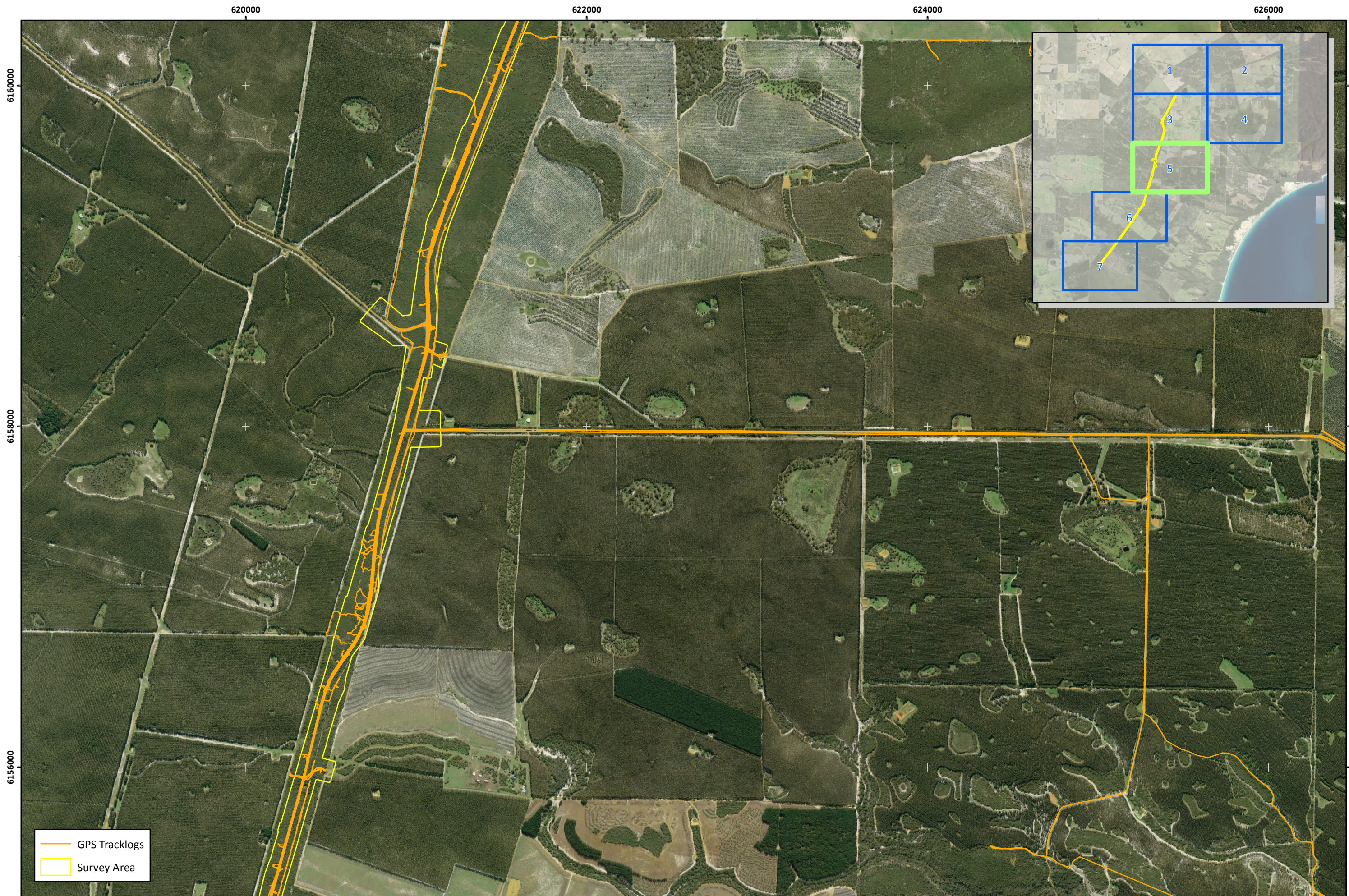
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Date: 30-05-2019

Coordinate System: GDA 1994 MGA Zone 50
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.5: Survey Effort

Author: M. Stalker

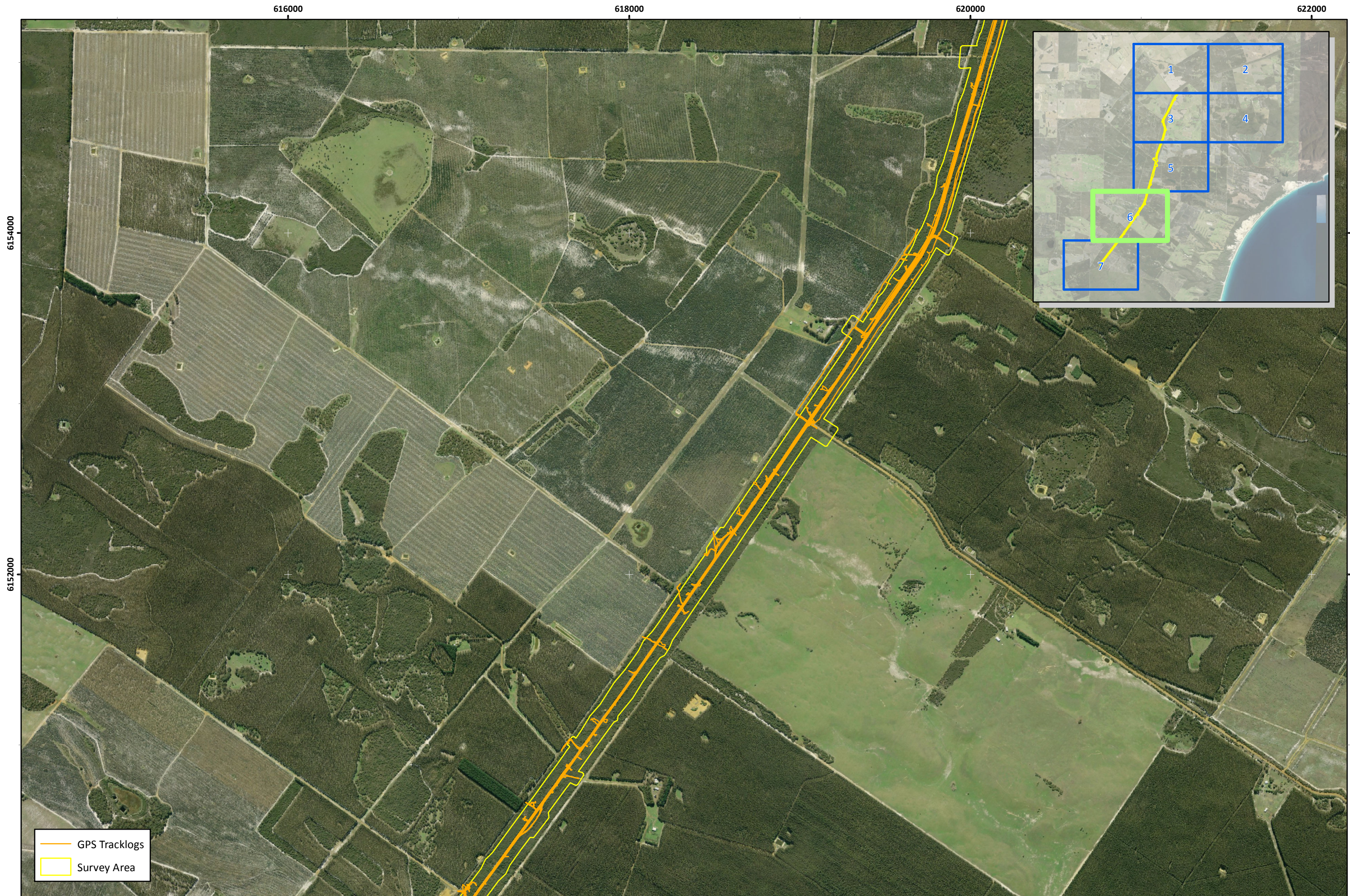
Drawn: L. Robinson

Date: 30-05-2019

Coordinate System: GDA 1994 MGA Zone 50
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.6: Survey Effort

Author: M. Stalker

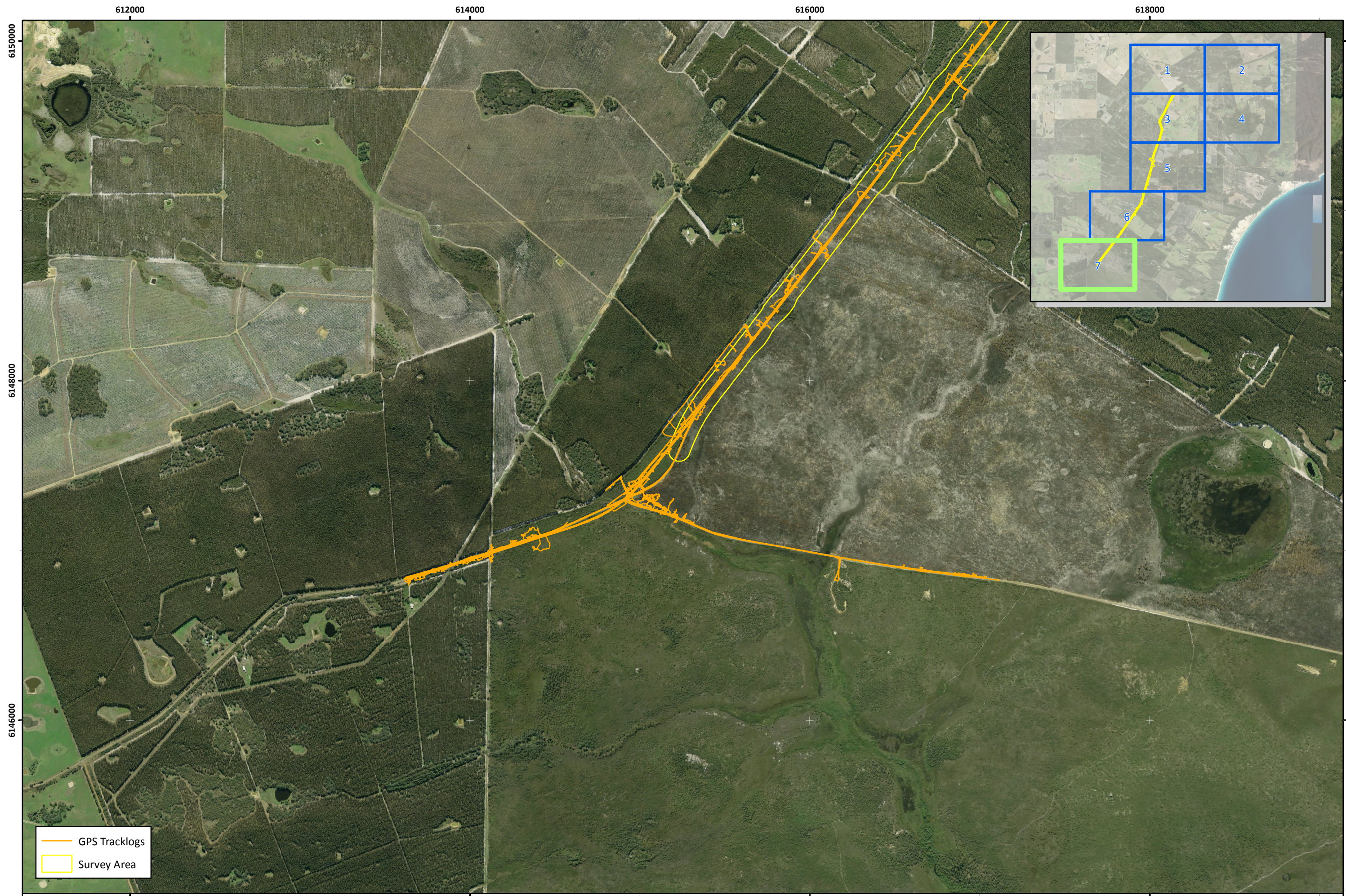
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure E.7: Survey Effort

Author: M. Stalker

Drawn: L. Robinson

Date: 30-05-2019

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:20000 at A3
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Figure Ref: 8602-18-BISR-1RevB_190524_FigG_SurveyEffort

Appendix F: Conservation Significant Flora and Weed Locations

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Table F.1: Location and census information for all priority flora recorded within Survey Area and extension survey areas (GDA 1994).

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Andersonia</i> sp. Jamesii (J. Liddelow 84) P4	1	-34.8052	118.260514	1	Survey Area
<i>Andersonia</i> sp. Jamesii (J. Liddelow 84) P4	1	-34.8048	118.261568	1	Survey Area
<i>Andersonia</i> sp. Jamesii (J. Liddelow 84) P4	1	-34.8039	118.262384	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.657	118.337034	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6571	118.337045	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6573	118.336857	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6577	118.336825	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6578	118.336728	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6613	118.334641	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6612	118.334545	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6613	118.334539	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6661	118.331809	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.657	118.337016	5	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6661	118.331557	1	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6577	118.337669	10	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6575	118.337699	3	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6573	118.336859	2	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6573	118.336813	5	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6577	118.336725	5	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6655	118.331949	5	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.656	118.337783	5	Survey Area
<i>Drosera fimbriata</i> P4	1	-34.6645	118.336067	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Drosera fimbriata</i> P4	1	-34.6645	118.335909	1	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	1	-34.6639	118.334348	1	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	1	-34.6639	118.334211	10	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	1	-34.6683	118.332667	15	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	1	-34.6684	118.333006	10	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	1	-34.6682	118.333055	100	Extension surveys (outside of Survey Area)
<i>Drosera fimbriata</i> P4	2	-34.7917	118.273578	1	Survey Area
<i>Drosera fimbriata</i> P4	2	-34.7917	118.273637	1	Survey Area
<i>Drosera fimbriata</i> P4	3	-34.7967	118.269287	1	Survey Area
<i>Drosera fimbriata</i> P4	3	-34.7965	118.26855	20	Survey Area
<i>Drosera fimbriata</i> P4	3	-34.7959	118.269365	10	Survey Area
<i>Drosera fimbriata</i> P4	3	-34.7959	118.269202	10	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8062	118.26064	10	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8069	118.260686	100+ in 10x10	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8066	118.260494	10	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8068	118.260675	1	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8065	118.260745	1	Survey Area
<i>Drosera fimbriata</i> P4	4	-34.8062	118.260773	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8056	118.261102	50+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8054	118.26118	20+	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Gonocarpus trichostachyus</i> P3	1	-34.8045	118.261939	50+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8031	118.26335	10	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8042	118.261653	5	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8043	118.261475	50+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8046	118.261221	50+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8055	118.260742	2	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7983	118.267492	20+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7983	118.267725	10	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7936	118.271887	10+	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7983	118.267479	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7983	118.267726	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7982	118.26771	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7937	118.272146	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.794	118.271717	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8041	118.261528	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8042	118.261435	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.804	118.262375	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8039	118.262505	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8008	118.264897	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7968	118.268222	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7954	118.269493	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7954	118.269481	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7953	118.269667	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7951	118.269736	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.798	118.267986	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Gonocarpus trichostachyus</i> P3	1	-34.7988	118.2671	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7895	118.275871	1	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.8007	118.264548	10	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7899	118.275809	10	Extension surveys (outside of Survey Area)
<i>Gonocarpus trichostachyus</i> P3	1	-34.7895	118.275864	2	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7954	118.26944	20	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.799	118.266945	20	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7992	118.266235	5	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7982	118.266824	5	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.798	118.267367	5	Survey Area
<i>Gonocarpus trichostachyus</i> P3	1	-34.7899	118.275811	5	Extension surveys (outside of Survey Area)
<i>Kunzea montana</i> (locally significant) (WAHerb voucher DAR1044)	1	-34.7305	118.314438	1	Survey Area
<i>Kunzea montana</i> (locally significant) (WAHerb voucher DAR1045)	2	-34.6587	118.4313	1	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	1	-34.6575	118.337345	1	Survey Area
<i>Latrobea recurva</i> P3	1	-34.6572	118.337527	1	Survey Area
<i>Latrobea recurva</i> P3	1	-34.6569	118.337035	2	Survey Area
<i>Latrobea recurva</i> P3	1	-34.6577	118.337669	4	Survey Area
<i>Latrobea recurva</i> P3	2	-34.6655	118.331839	1	Survey Area
<i>Latrobea recurva</i> P3	2	-34.666	118.331549	1	Survey Area
<i>Latrobea recurva</i> P3	2	-34.6665	118.331556	3	Survey Area
<i>Latrobea recurva</i> P3	3	-34.6684	118.332821	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Latrobea recurva</i> P3	3	-34.6683	118.332884	1	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6683	118.332808	2	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6684	118.332704	2	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6686	118.333313	1	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6688	118.333148	30	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6689	118.333127	50	Extension surveys (outside of Survey Area)
<i>Latrobea recurva</i> P3	3	-34.6685	118.333293	2	Extension surveys (outside of Survey Area)
<i>Laxmannia grandiflora</i> subsp. <i>stirlingensis</i> P3	1	-34.6458	118.344276	1	Extension surveys (outside of Survey Area)
<i>Leucopogon altissimus</i> P3	1	-34.7594	118.30079	7	Survey Area
<i>Leucopogon altissimus</i> P3	1	-34.7588	118.301608	2	Survey Area
<i>Leucopogon altissimus</i> P3	1	-34.7589	118.301541	2	Survey Area
<i>Leucopogon altissimus</i> P3	1	-34.759	118.301508	5	Survey Area
<i>Leucopogon altissimus</i> P3	1	-34.7591	118.301393	15	Survey Area
<i>Leucopogon altissimus</i> P3	1	-34.7581	118.301551	1	Survey Area
<i>Leucopogon altissimus</i> P3	2	-34.7876	118.277528	1	Survey Area
<i>Leucopogon elegans</i> subsp. <i>psorophyllus</i> P3	1	-34.7915	118.272979	10	Survey Area
<i>Leucopogon elegans</i> subsp. <i>psorophyllus</i> P3	2	-34.6761	118.385376	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6777	118.33174	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6776	118.331676	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6795	118.331994	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6778	118.331805	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6776	118.331755	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.677	118.331435	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6755	118.330702	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330735	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330836	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330901	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330913	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330909	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6755	118.330676	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6754	118.330677	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6739	118.33242	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6758	118.33232	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6758	118.33247	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6758	118.332461	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6762	118.332494	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6776	118.332835	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6776	118.33281	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6776	118.33281	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6781	118.331556	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6781	118.331555	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6809	118.331495	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6809	118.331579	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6809	118.331578	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6809	118.331583	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6809	118.331584	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.33463	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334627	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334626	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334626	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334638	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334669	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.33469	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334706	3	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334704	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334708	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6691	118.334727	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6691	118.334749	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334752	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6691	118.334738	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6691	118.334776	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6692	118.334822	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6692	118.334848	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6692	118.334857	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6692	118.334871	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334571	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334571	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.669	118.334526	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6745	118.328545	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6744	118.328361	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6743	118.328296	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6745	118.328486	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6747	118.328461	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6748	118.328536	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6748	118.328954	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6748	118.329	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6749	118.329092	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.328558	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6765	118.331157	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6745	118.330392	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6744	118.330479	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6736	118.329736	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6735	118.329681	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6735	118.329682	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6735	118.329652	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6734	118.329635	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6734	118.329617	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.329535	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.32956	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.329561	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.329546	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6731	118.329498	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6731	118.329486	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6731	118.329493	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6723	118.329485	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6723	118.329497	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6723	118.329502	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6722	118.329502	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6722	118.32953	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329531	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329544	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329552	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329543	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329548	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329558	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.329557	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329572	3	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329545	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329567	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329577	7	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.329594	8	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.329605	3	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6715	118.329672	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6708	118.329892	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6708	118.329897	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6707	118.329938	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6707	118.329913	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6706	118.329927	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6706	118.329972	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6806	118.331623	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6806	118.331677	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6808	118.331687	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6677	118.329436	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6839	118.330714	5	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.330812	20	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6824	118.331187	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6841	118.330609	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6724	118.328302	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.329772	2	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6757	118.330781	6	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6757	118.330762	3	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.33065	3	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.681	118.33161	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6818	118.331329	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6833	118.330025	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.329796	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.329571	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.329485	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6835	118.329588	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6834	118.329653	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6833	118.329572	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6832	118.329598	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.683	118.329686	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6758	118.330813	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6758	118.330831	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330628	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6756	118.330671	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6724	118.32953	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6681	118.331529	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6682	118.331502	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6682	118.331476	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6682	118.331487	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6683	118.331499	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6683	118.331505	6	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6677	118.330532	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6717	118.3289	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6718	118.328904	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.328914	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.328886	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.3289	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.328886	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6721	118.328887	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6719	118.32897	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329091	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329112	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329116	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329332	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329352	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329421	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.672	118.329422	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6677	118.330657	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6677	118.330694	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6678	118.330727	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331199	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331208	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331213	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331233	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331251	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331346	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331366	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6679	118.331385	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.668	118.331399	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.668	118.331404	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.668	118.331461	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.668	118.331479	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.668	118.331477	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6733	118.329196	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6733	118.329189	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6732	118.329484	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.676	118.330883	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6761	118.330963	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6771	118.331464	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	1	-34.6772	118.331518	1	Survey Area
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	2	-34.6711	118.320913	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6701	118.380601	6	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6701	118.381741	14	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6701	118.381956	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6699	118.382385	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6699	118.382401	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6697	118.382546	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6698	118.382411	2	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6698	118.382401	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6701	118.381869	2	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	3	-34.6701	118.381691	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	4	-34.6728	118.392145	5	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	4	-34.6729	118.393975	10	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	4	-34.6728	118.392805	35	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	5	-34.6759	118.387418	25	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	5	-34.676	118.387306	45	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	5	-34.6759	118.387182	25	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	5	-34.676	118.387187	10	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6815	118.414675	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6805	118.415755	5	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6814	118.414484	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6813	118.414665	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6814	118.414915	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.68	118.415413	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6801	118.415545	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6801	118.415789	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6802	118.415865	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6813	118.414929	4	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6801	118.415837	5	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6801	118.415686	10	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6801	118.415593	10	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6805	118.415755	5	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6819	118.414942	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	6	-34.6815	118.414675	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6794	118.437261	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6794	118.437439	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6794	118.437506	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6795	118.436941	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6795	118.436841	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7a	-34.6795	118.436778	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6775	118.438824	3	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6774	118.438432	10	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.43839	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.438387	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.43837	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.438355	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.438083	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.43765	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7b	-34.6773	118.437656	1	Extension surveys (outside of Survey Area)
<i>Leucopogon</i> sp. Manypeaks (A.S. George 6488) P1	7c	-34.6741	118.440499	600	Extension surveys (outside of Survey Area)
<i>Petrophile carduacea</i> P2	1	-34.7474	118.309143	1	Survey Area
<i>Petrophile carduacea</i> P2	1	-34.7473	118.30911	1	Survey Area
<i>Prostanthera verticillaris</i> P1	1	-34.6795	118.414256	100+	Extension surveys (outside of Survey Area)
<i>Sphaerolobium validum</i> P3	1	-34.6695	118.32999	2	Survey Area
<i>Sphaerolobium validum</i> P3	1	-34.6701	118.329638	5	Survey Area
<i>Spyridium riparium</i> P2	1	-34.6606	118.335482	1	Survey Area
<i>Spyridium riparium</i> P2	2	-34.6814	118.415064	100+	Extension surveys (outside of Survey Area)
<i>Spyridium riparium</i> P2	3	-34.6794	118.437016	100+	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	1	-34.6559	118.337527	11 in 10 m radius	Survey Area
<i>Stenanthemum sublineare</i> P2	1	-34.656	118.337565	1	Survey Area
<i>Stenanthemum sublineare</i> P2	1	-34.656	118.337565	1	Survey Area
<i>Stenanthemum sublineare</i> P2	2	-34.6639	118.334244	2	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.6639	118.334337	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stenanthemum sublineare</i> P2	2	-34.6639	118.334371	1	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.6639	118.33443	2	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.664	118.334605	2	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.664	118.334708	4	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.6638	118.334146	5	Survey Area
<i>Stenanthemum sublineare</i> P2	2	-34.669	118.334574	1	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	2	-34.668	118.331783	1	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	3	-34.6855	118.329315	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6849	118.329315	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6853	118.329389	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6852	118.329331	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6853	118.329537	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6855	118.329333	1	Survey Area
<i>Stenanthemum sublineare</i> P2	3	-34.6833	118.330083	1	Survey Area
<i>Stenanthemum sublineare</i> P2	4	-34.7226	118.318087	1	Survey Area
<i>Stenanthemum sublineare</i> P2	5	-34.6934	118.361502	10	Extension surveys (outside of Survey Area)
<i>Stenanthemum sublineare</i> P2	5	-34.6921	118.365879	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stylidium daphne</i> P2	1	-34.6778	118.331853	3	Extension surveys (outside of Survey Area)
<i>Stylidium daphne</i> P2	1	-34.6773	118.330411	5	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6903	118.32858	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6901	118.328643	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.69	118.328711	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6899	118.328727	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6898	118.328793	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6885	118.329246	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6861	118.329985	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.691	118.327487	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6908	118.327405	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6839	118.329501	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.684	118.32948	10	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6835	118.32981	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6834	118.329658	5	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6895	118.328569	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6938	118.327117	1	Survey Area
<i>Stylidium daphne</i> P2	1	-34.6757	118.330781	1	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7075	118.322533	1	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7075	118.322466	1	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7069	118.322582	1	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7064	118.322441	1	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7077	118.322593	5	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stylidium daphne</i> P2	2	-34.7083	118.322532	2	Extension surveys (outside of Survey Area)
<i>Stylidium daphne</i> P2	2	-34.7077	118.322544	2	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7072	118.322495	3	Survey Area
<i>Stylidium daphne</i> P2	2	-34.7078	118.322023	2	Survey Area
<i>Stylidium daphne</i> P2	2	-34.708	118.322004	1	Survey Area
<i>Stylidium daphne</i> P2	3	-34.7229	118.317407	1	Survey Area
<i>Stylidium daphne</i> P2	3	-34.7266	118.316385	1	Survey Area
<i>Stylidium daphne</i> P2	3	-34.7226	118.317976	2	Survey Area
<i>Stylidium daphne</i> P2	4	-34.759	118.300528	1	Survey Area
<i>Stylidium daphne</i> P2	4	-34.7591	118.300592	1	Survey Area
<i>Stylidium daphne</i> P2	4	-34.7589	118.300398	1	Survey Area
<i>Stylidium daphne</i> P2	4	-34.759	118.300446	2	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7939	118.271942	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.8029	118.262796	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7938	118.272057	10+	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7939	118.271916	2	Survey Area
<i>Stylidium daphne</i> P2	5	-34.8013	118.264362	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7948	118.269999	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7937	118.271982	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.7978	118.268098	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.798	118.268033	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.8012	118.26508	1	Survey Area
<i>Stylidium daphne</i> P2	5	-34.8074	118.259111	1	Extension surveys (outside of Survey Area)

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stylidium daphne</i> P2	6	-34.6921	118.365923	2	Extension surveys (outside of Survey Area)
<i>Stylidium daphne</i> P2	6	-34.6926	118.367073	10	Extension surveys (outside of Survey Area)
<i>Stylidium gloeophyllum</i> P4	1	-34.7938	118.272007	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7941	118.271679	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7939	118.271764	2	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7939	118.271507	15	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7939	118.271101	3	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7936	118.271324	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7934	118.271664	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7947	118.270206	100	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7943	118.270766	100	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7937	118.271307	20	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7938	118.27176	10	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.7939	118.271736	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.794	118.271655	30	Survey Area
<i>Stylidium gloeophyllum</i> P4	1	-34.794	118.271668	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8007	118.265478	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8008	118.265556	50+	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8001	118.265024	2	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7994	118.265954	10	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8008	118.264901	20	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8008	118.264793	10	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8008	118.264605	10	Survey Area

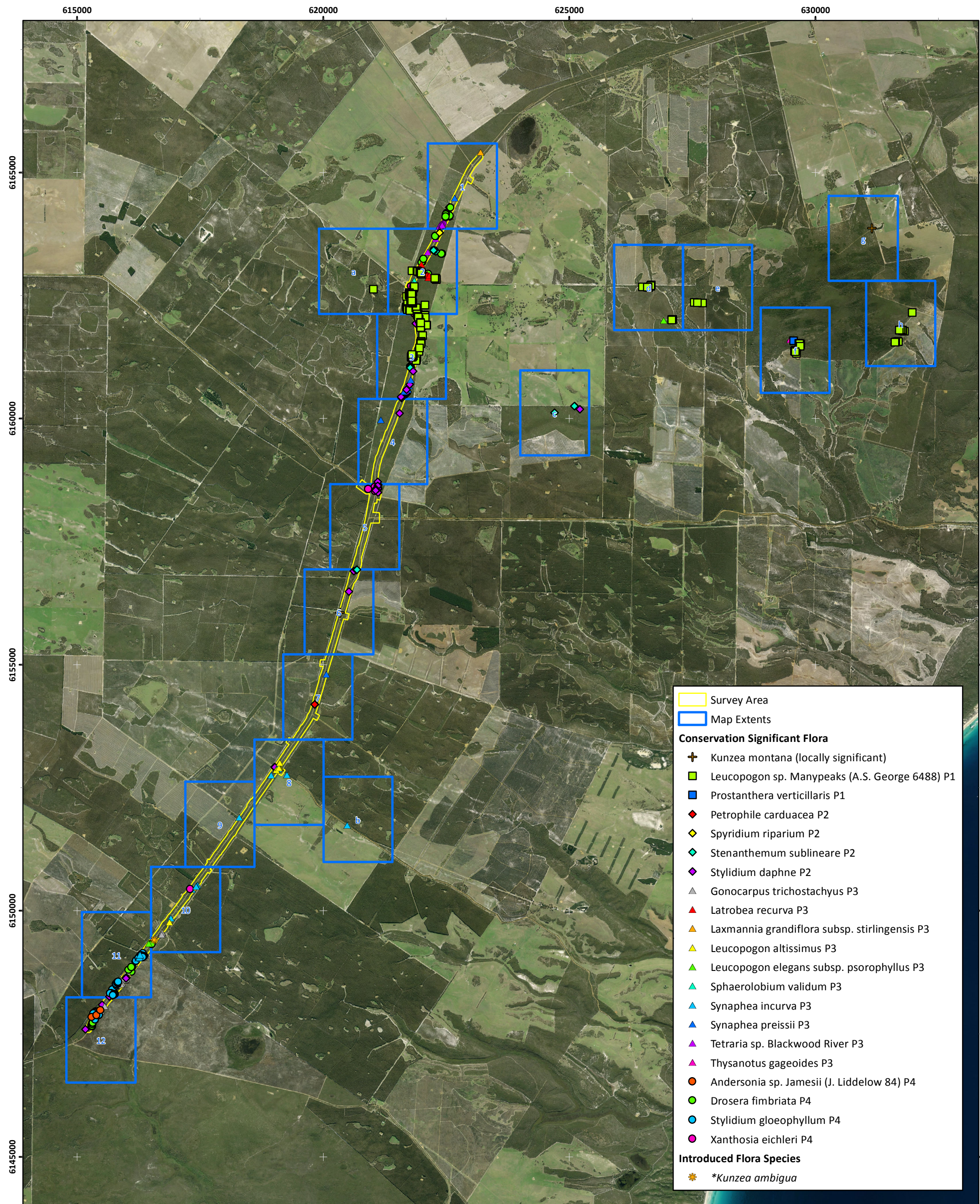
Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stylidium gloeophyllum</i> P4	2	-34.8007	118.264563	10	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7991	118.266156	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7991	118.265915	5	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.799	118.265777	10	Extension surveys (outside of Survey Area)
<i>Stylidium gloeophyllum</i> P4	2	-34.799	118.265851	50	Extension surveys (outside of Survey Area)
<i>Stylidium gloeophyllum</i> P4	2	-34.7988	118.266078	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7988	118.266132	100	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7987	118.266269	100	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.7986	118.26631	100	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8009	118.265543	20	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8009	118.265429	25	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8009	118.265365	25	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.801	118.265316	30	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.801	118.265274	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8011	118.265265	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	2	-34.8011	118.265191	50	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8043	118.261455	2	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8041	118.261473	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8043	118.261178	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8043	118.26111	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8045	118.260907	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8056	118.26128	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8048	118.261725	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Stylidium gloeophyllum</i> P4	3	-34.8048	118.262005	1	Survey Area
<i>Stylidium gloeophyllum</i> P4	3	-34.8047	118.262142	1	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7594	118.300776	1	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7589	118.301164	1	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7588	118.301204	1	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7592	118.301258	11	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7593	118.300872	7	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7594	118.300815	4	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7591	118.30105	6	Survey Area
<i>Synaphea incurva</i> P3	1	-34.759	118.301103	2	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7589	118.301146	6	Survey Area
<i>Synaphea incurva</i> P3	1	-34.7605	118.299683	2	Survey Area
<i>Synaphea incurva</i> P3	2	-34.7682	118.292654	1	Extension surveys (outside of Survey Area)
<i>Synaphea incurva</i> P3	3	-34.7814	118.282024	1	Survey Area
<i>Synaphea incurva</i> P3	3	-34.7815	118.282433	1	Survey Area
<i>Synaphea incurva</i> P3	3	-34.7807	118.283634	1	Survey Area
<i>Synaphea incurva</i> P3	3	-34.7809	118.283413	2	Survey Area
<i>Synaphea incurva</i> P3	3	-34.7809	118.283367	1	Survey Area
<i>Synaphea incurva</i> P3	3	-34.781	118.283345	1	Survey Area
<i>Synaphea incurva</i> P3	4	-34.7869	118.277784	5	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7942	118.270808	50	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7941	118.271034	5	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7943	118.270676	45	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7941	118.270906	25	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Synaphea incurva</i> P3	5	-34.7941	118.270974	20	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7937	118.271099	25	Survey Area
<i>Synaphea incurva</i> P3	5	-34.7936	118.271106	2	Survey Area
<i>Synaphea incurva</i> P3	6	-34.7603	118.303148	35	Extension surveys (outside of Survey Area)
<i>Synaphea incurva</i> P3	7	-34.7694	118.316684	40	Extension surveys (outside of Survey Area)
<i>Synaphea preissii</i> P3	1	-34.6542	118.338649	1	Survey Area
<i>Synaphea preissii</i> P3	2	-34.6894	118.328899	1	Survey Area
<i>Synaphea preissii</i> P3	2	-34.6888	118.329161	5	Survey Area
<i>Synaphea preissii</i> P3	2	-34.6876	118.329509	10	Survey Area
<i>Synaphea preissii</i> P3	2	-34.6951	118.322975	1	Extension surveys (outside of Survey Area)
<i>Synaphea preissii</i> P3	2	-34.6898	118.328068	5	Survey Area
<i>Synaphea preissii</i> P3	3	-34.7418	118.311643	10	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6586	118.336337	scattered 20 +	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6588	118.336154	scattered throughout	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.659	118.33577	50+	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6592	118.335545	10+	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6594	118.335436	10+	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6618	118.334566	10+	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6642	118.332879	10+	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6588	118.336143	1	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.659	118.335972	1	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6591	118.336052	1	Survey Area

Taxon	Population ID	Latitude	Longitude	No. of individuals	Zone
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6592	118.336015	1	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6601	118.335457	1	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	1	-34.6603	118.335296	1	Survey Area
<i>Tetraria</i> sp. Blackwood River (A.R. Annels 3043) P3	2	-34.6752	118.330197	10+	Survey Area
<i>Thysanotus gageoides</i> P3	1	-34.6793	118.413514	10	Extension surveys (outside of Survey Area)
<i>Xanthosia eichleri</i> P4	1	-34.6747	118.329587	10	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6739	118.32954	2	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6739	118.329561	1	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6747	118.329443	1	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6748	118.329679	1	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6756	118.330135	1	Survey Area
<i>Xanthosia eichleri</i> P4	1	-34.6705	118.329324	10	Survey Area
<i>Xanthosia eichleri</i> P4	2	-34.7074	118.321845	1	Survey Area
<i>Xanthosia eichleri</i> P4	2	-34.7082	118.321936	1	Survey Area
<i>Xanthosia eichleri</i> P4	2	-34.7077	118.320365	6	Survey Area
<i>Xanthosia eichleri</i> P4	3	-34.7814	118.282024	1	Survey Area

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Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F: Conservation Significant Flora and Weed Locations - Overview



Author: M. Stalker	Date: 30-05-2019	Coordinate System: GDA 1994 MGA Zone 50 0 1 2 3 4 Kilometres N
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora_Overview	



Survey Area

Conservation Significant Flora

Stenanthemum sublineare P2

Latrobea recurva P3

Laxmannia grandiflora subsp. *stirlingensis* P3

Synaphea preissii P3

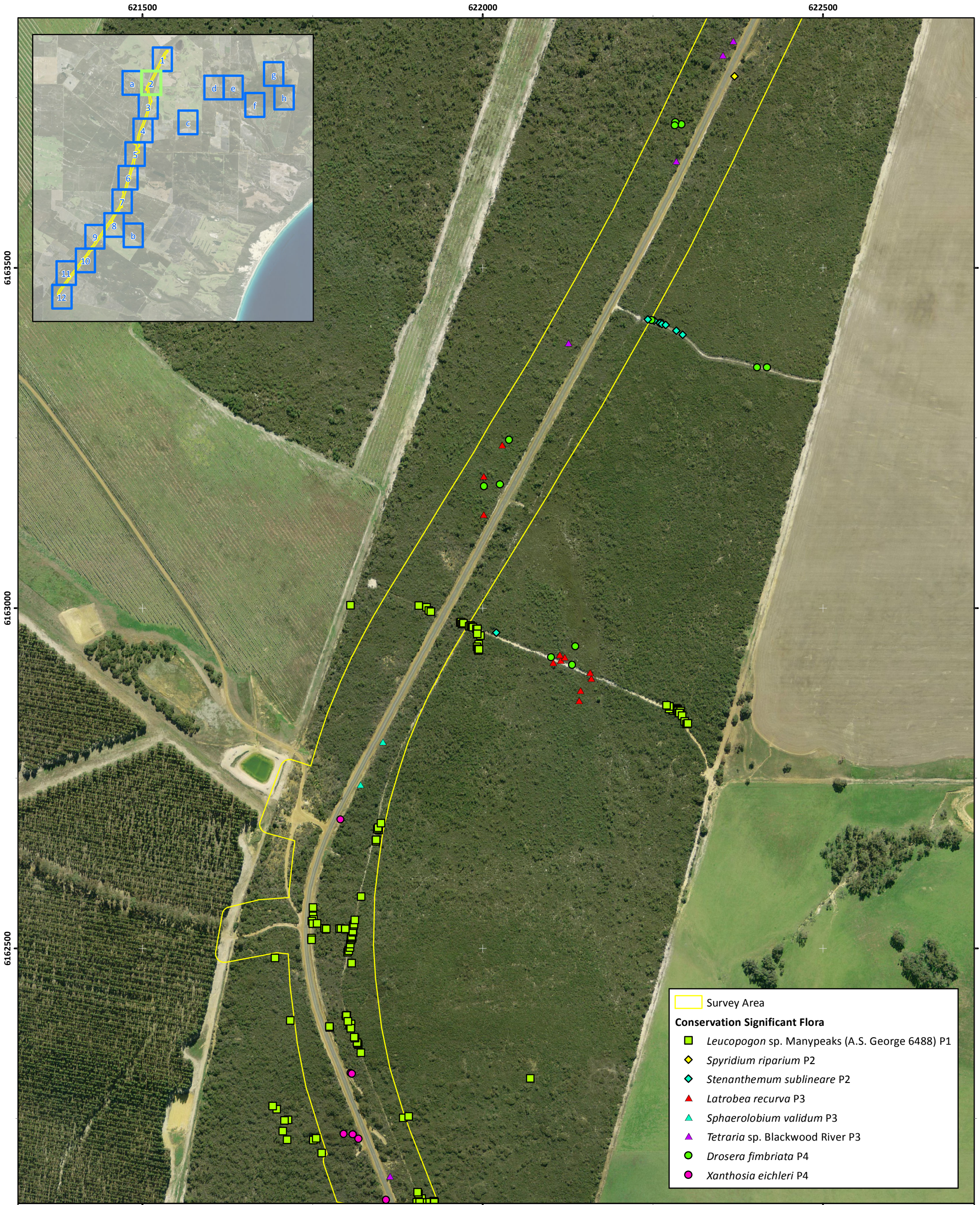
Tetraria sp. Blackwood River P3

Drosera fimbriata P4

Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.1: Conservation Significant Flora and Weed Locations

Author: M. Stalker	Date: 30-05-2019	Coordinate System: GDA 1994 MGA Zone 50 Scale: 1:5000 at A3 <div>050100150200250Metres</div>	<div>N</div>
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora		



Main Roads Western Australia
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Figure F.2: Conservation Significant Flora and Weed Locations



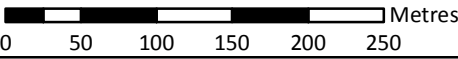
Author: M. Stalker

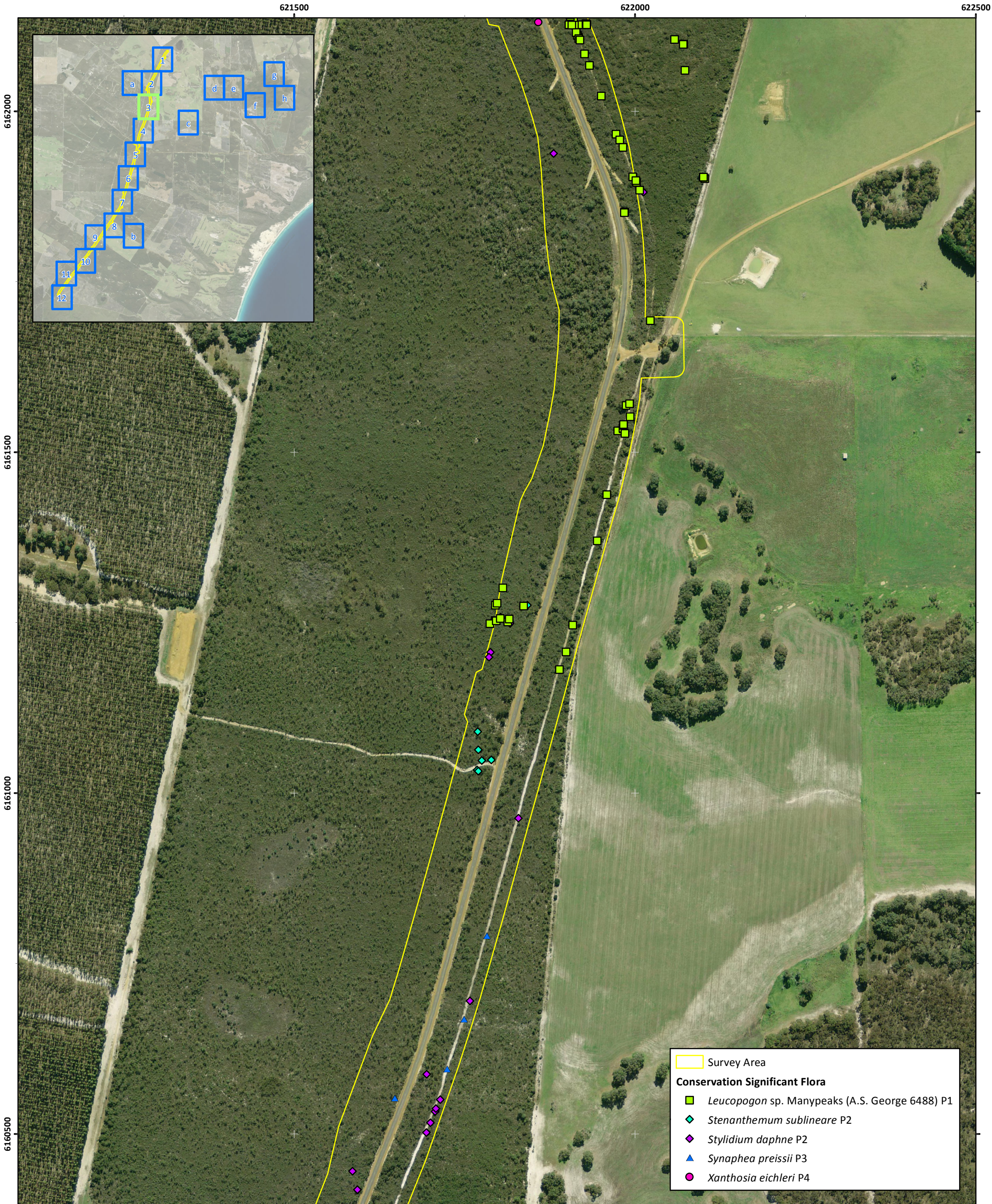
Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





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Figure F.3: Conservation Significant Flora and Weed Locations

Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3

0 50 100 150 200 250 Metres





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.4: Conservation Significant Flora and Weed Locations

Author: M. Stalker	Date: 30-05-2019	Coordinate System: GDA 1994 MGA Zone 50 Scale: 1:5000 at A3 <div>050100150200250</div> Metres	
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora		



Main Roads Western Australia
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Figure F.5: Conservation Significant Flora and Weed Locations



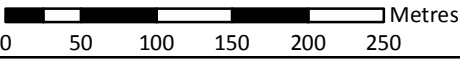
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.6: Conservation Significant Flora and Weed Locations

Author: M. Stalker	Date: 30-05-2019	Coordinate System: GDA 1994 MGA Zone 50 Scale: 1:5000 at A3 <div>050100150200250Metres</div>	<div>N</div>
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora		



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.7: Conservation Significant Flora and Weed Locations

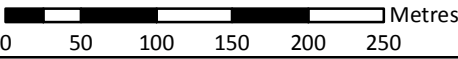
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.8: Conservation Significant Flora and Weed Locations



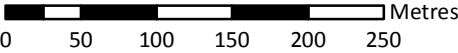
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.9: Conservation Significant Flora and Weed Locations



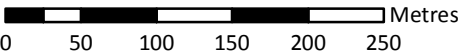
Author: M. Stalker

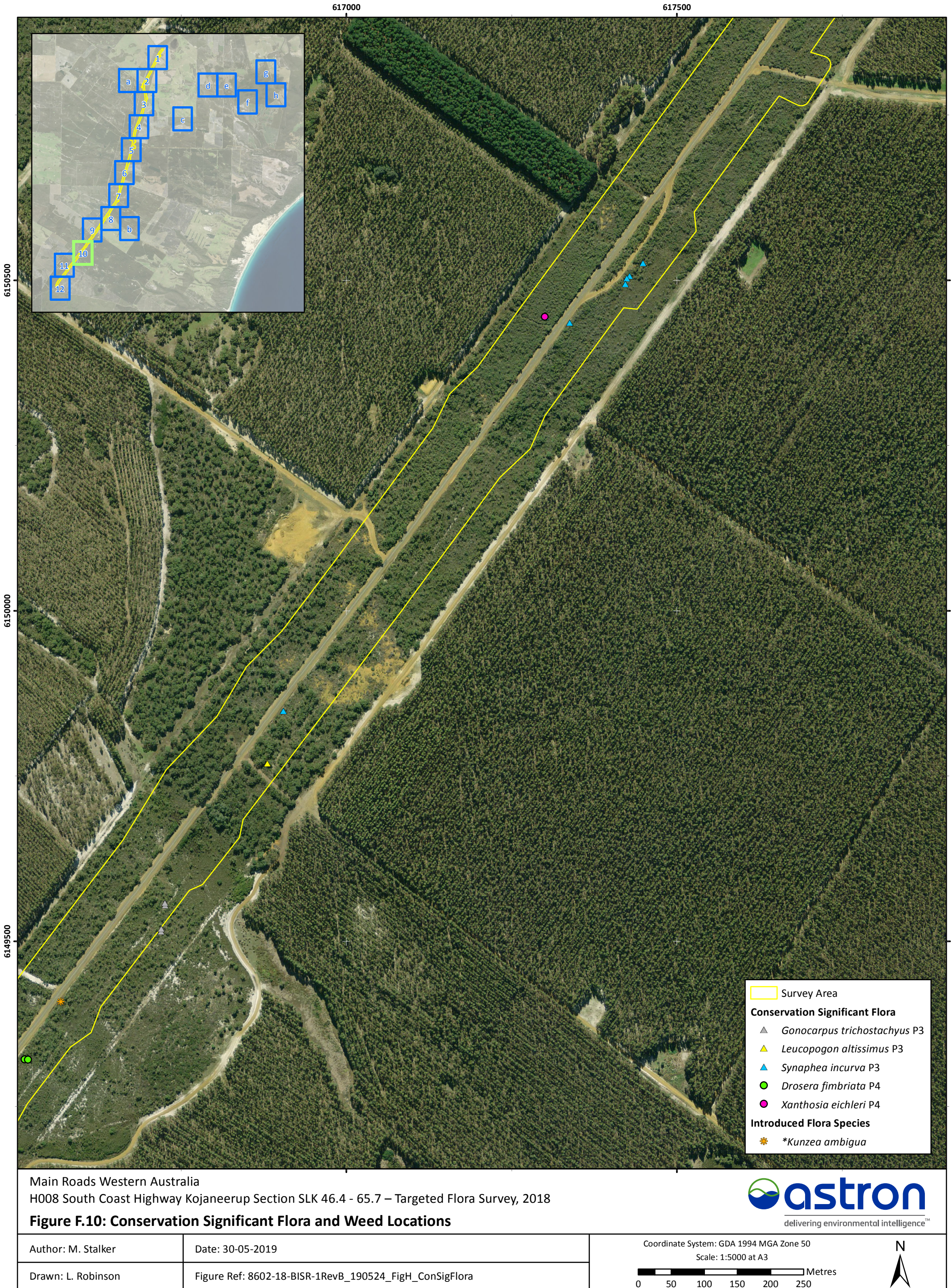
Date: 30-05-2019

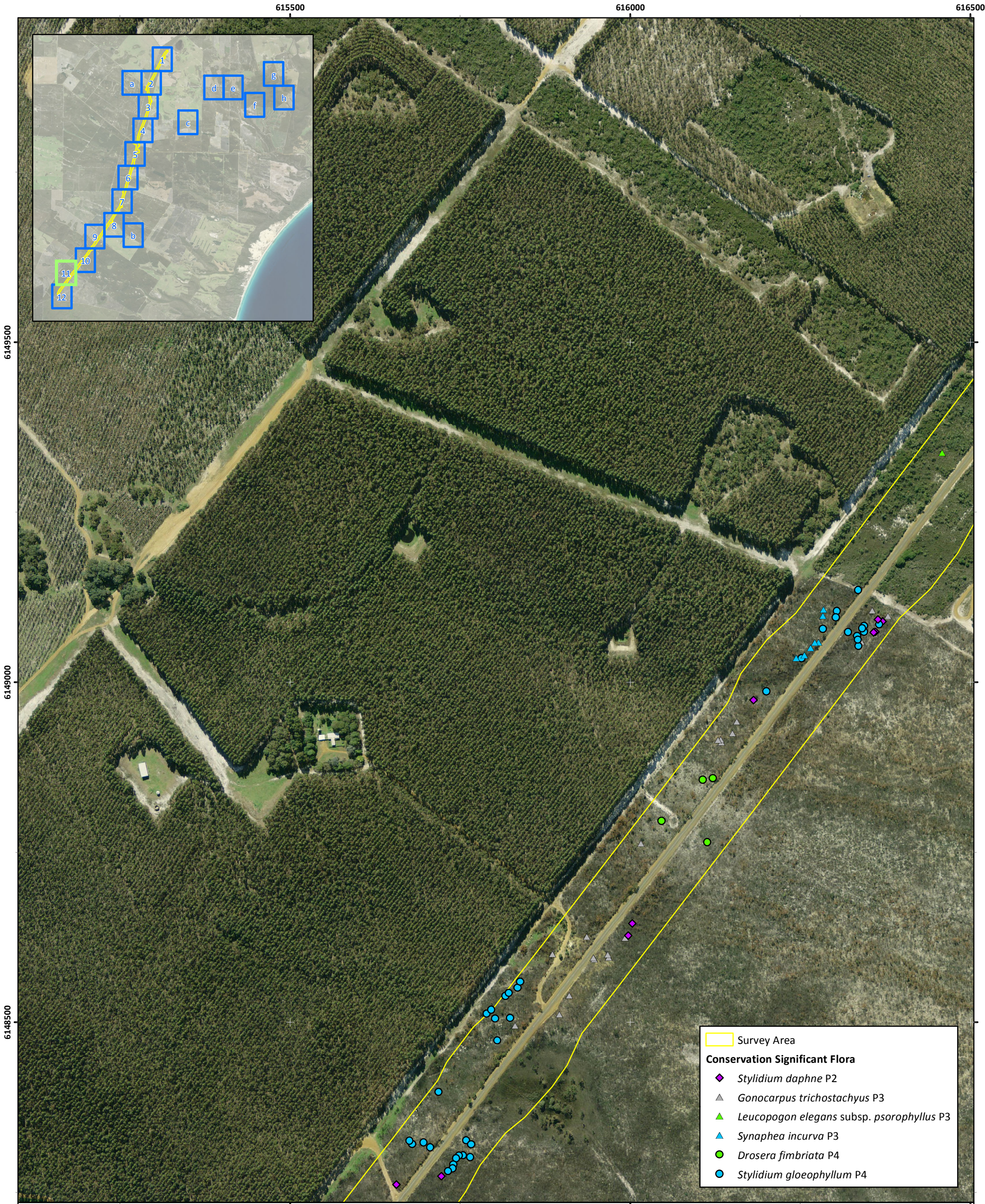
Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3







Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.11: Conservation Significant Flora and Weed Locations



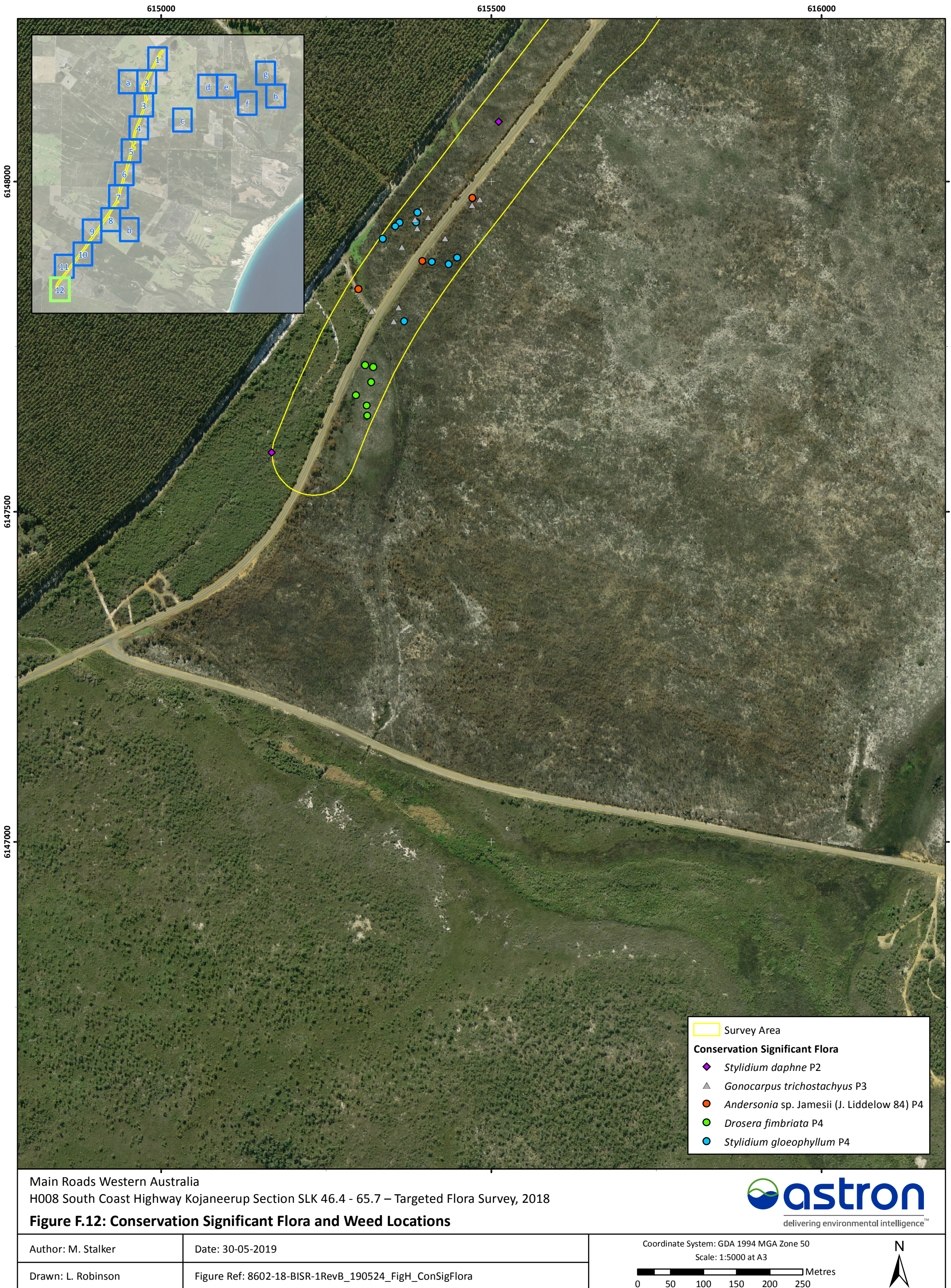
Author: M. Stalker	Date: 30-05-2019
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3

050100150200250

Metres

N





Conservation Significant Flora
■ *Leucopogon* sp. Manypeaks (A.S. George 6488) P1

Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.a: Conservation Significant Flora and Weed Locations



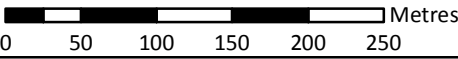
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.b: Conservation Significant Flora and Weed Locations



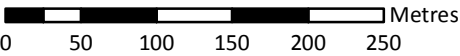
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.c: Conservation Significant Flora and Weed Locations



Author: M. Stalker	Date: 30-05-2019	Coordinate System: GDA 1994 MGA Zone 50 Scale: 1:5000 at A3	 0 50 100 150 200 250 Metres
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora		



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.d: Conservation Significant Flora and Weed Locations



Author: M. Stalker	Date: 30-05-2019
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3

050100150200250

Metres

N



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.e: Conservation Significant Flora and Weed Locations



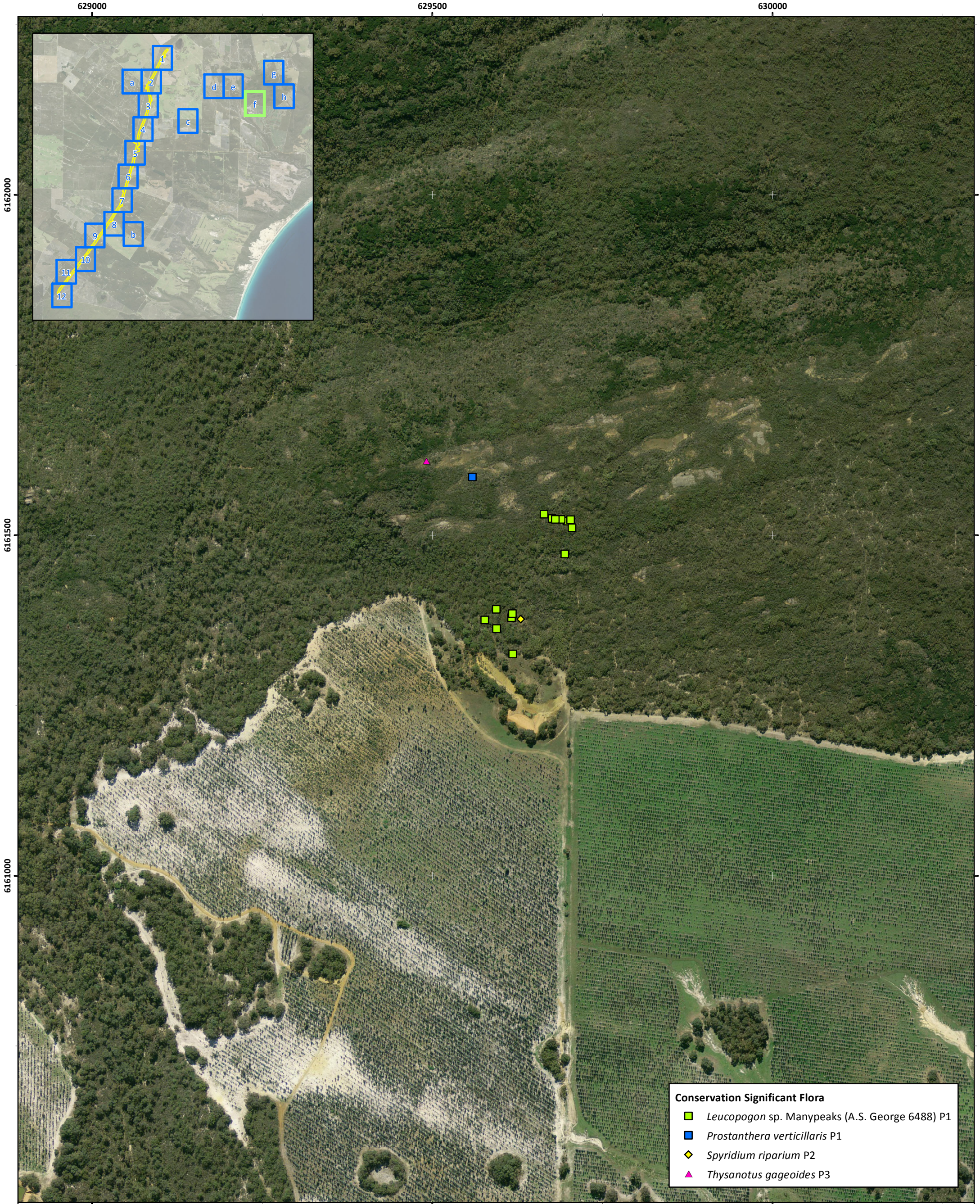
Author: M. Stalker	Date: 30-05-2019
Drawn: L. Robinson	Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3

050100150200250

Metres

N



Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.f: Conservation Significant Flora and Weed Locations



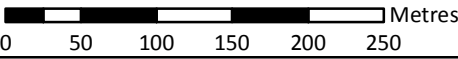
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Conservation Significant Flora
+ *Kunzea montana* (locally significant)

Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.g: Conservation Significant Flora and Weed Locations



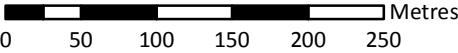
Author: M. Stalker

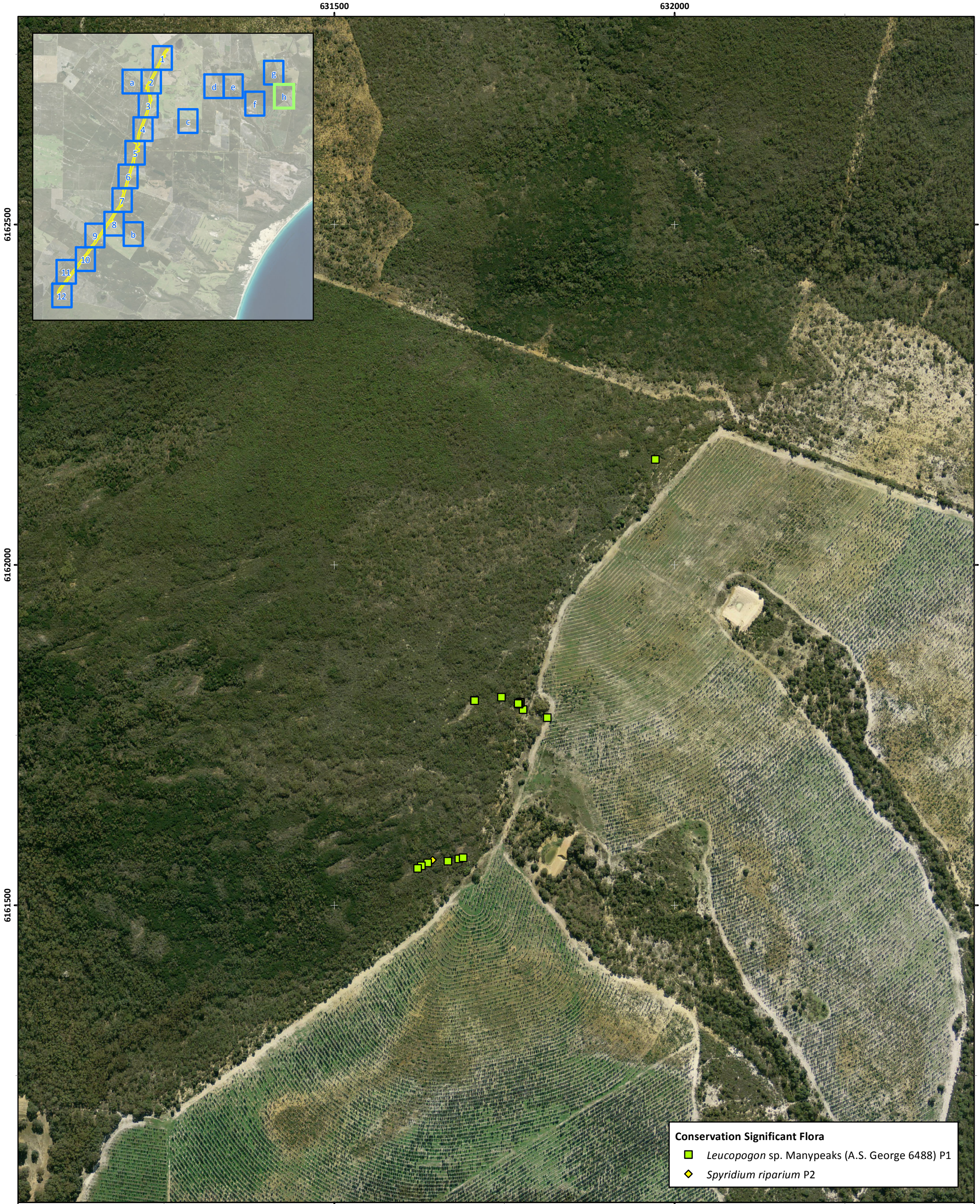
Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3





Main Roads Western Australia
H008 South Coast Highway Kojaneerup Section SLK 46.4 - 65.7 – Targeted Flora Survey, 2018

Figure F.h: Conservation Significant Flora and Weed Locations



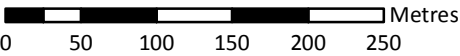
Author: M. Stalker

Date: 30-05-2019

Drawn: L. Robinson

Figure Ref: 8602-18-BISR-1RevB_190524_FigH_ConSigFlora

Coordinate System: GDA 1994 MGA Zone 50
Scale: 1:5000 at A3



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Appendix G: Threatened and Priority Flora Report Forms

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: Andersonia sp. Jamesii (J. Liddelow 84)	TPFL Pop. No: _____
OBSERVATION DATE: 22/7/2016	CONSERVATION STATUS: P4 New population <input checked="" type="checkbox"/>
OBSERVER/S: Damien Rathbone	PHONE: 0408 802 404
ROLE: Consultant Ecologist	ORGANISATION: Southern Ecology on behalf of Main Roads WA

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Hassell National Park, South Coast Highway SLK 46.1 to 46.35

Reserve No: _____

DBC DISTRICT: Albany	LGA: City of Albany	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: -34.805184	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: 118.260514	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: 50	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____														
EFFORT: Time spent surveying (minutes): 0 No. of minutes spent / 100 m ² : _____														
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)														
WHAT COUNTED: Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>														
TOTAL POP'N STRUCTURE:	<table><tr><td>Mature:</td><td>Juveniles:</td><td>Seedlings:</td><td>Totals:</td></tr><tr><td>3</td><td></td><td></td><td>3</td></tr><tr><td></td><td></td><td></td><td></td></tr></table>	Mature:	Juveniles:	Seedlings:	Totals:	3			3					Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.
Mature:	Juveniles:	Seedlings:	Totals:											
3			3											
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____														
Summary Quad. Totals: Alive														
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: _____%														

CONDITION OF PLANTS: Healthy ☐ Moderate ☐ Poor ☒ Senescent ☐

COMMENT: Phytophthora dieback active

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____					
(Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Voucher Coll. No. DAR1042

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Drosera fimbriata</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>22/7/2016</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 63.2 to 64.7, both sides of the road.

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: <u>26650</u>
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.663859</u>	No. satellites: _____	Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.334211</u>	Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>188</u>		<u>188</u>
Dead			
Area of pop (m ²): _____			
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input checked="" type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: _____%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia attenuata Adenanthos cuneatus Shrubland on deep sand

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Plants mainly on edge of tracks and vegetation openings

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Drosera fimbriata</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P4</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): <u>Hassell National Park, South Coast Highway SLK 48.0, east side of road</u>		
		Reserve No: <u>26650</u>
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.791663</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.273578</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>5</u>		No. of minutes spent / 100 m ² : _____		
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____		(Refer to field manual for list)		
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>2</u>			<u>2</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: _____%

CONDITION OF PLANTS: Healthy <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> Poor <input type="checkbox"/> Senescent <input type="checkbox"/>
COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia attenuata, Adenanthos cuneatus Shrubland on deep sand

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Plants mainly on edge of tracks and vegetation openings

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Drosera fimbriata</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>20/11/2017</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 48.0, east side of road

Reserve No: 26650

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.795901</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.269202</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>41</u>			<u>41</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input checked="" type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: _____%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia attenuata, Adenanthos cuneatus Shrubland on deep sand

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Plants mainly on edge of tracks and vegetation openings

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Drosera fimbriata</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>20/11/2017</u>	CONSERVATION STATUS: <u>P4</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 46.0 east side of road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.80645</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.260745</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>123</u>		<u>123</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>
Flower <input type="checkbox"/> Percentage in flower: _____%			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input checked="" type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
CONDITION OF SOIL:	Dry <input type="checkbox"/>	Moist <input checked="" type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Actinodium damp heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Gonocarpus trichostachyus</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>16/10/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 46.0 to 48.3, both sides of the road

Reserve No: 26650

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.692083</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.365923</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>377</u>			<u>377</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>50%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Leucopogon altissimus</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>30/10/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway intersect Bluff Creek Road

Reserve No: _____	
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u> Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.759044</u>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.301508</u>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>
METHOD USED:	
GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
No. satellites: _____ Map used: _____	
Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE:	
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/> Private property <input type="checkbox"/> Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/> Pastoral lease <input type="checkbox"/> MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/> UCL <input type="checkbox"/> SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/>	Area observed (m ²): _____												
EFFORT: Time spent surveying (minutes): <u>60</u>	No. of minutes spent / 100 m ² : _____												
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/>	Count method: _____ (Refer to field manual for list)												
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>												
TOTAL POP'N STRUCTURE:													
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> <tr> <td>32</td> <td></td> <td></td> <td>32</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Mature:	Juveniles:	Seedlings:	Totals:	32			32				
Mature:	Juveniles:	Seedlings:	Totals:										
32			32										
Area of pop (m ²): _____	Note: Pls record count as numbers (not percentages) for database.												
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____												
Summary Quad. Totals: Alive													
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/>												
Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>0%</u>													

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata dominated Kwongkan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Dieback present

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Leucopogon altissimus</u>		TPFL Pop. No: _____	
OBSERVATION DATE: <u>5/12/2018</u>		CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>	
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>	
ROLE: <u>Consultant Ecologist</u>		ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway, track leading east at SLK 48.6

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____	
				Land manager present: <input type="checkbox"/>	

DATUM:		COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>		DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>		Lat / Northing: <u>-34.787581</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>		Long / Easting: <u>118.277528</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>		ZONE: <u>50</u>			

LAND TENURE:					
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>	
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>	
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____	

AREA ASSESSMENT: Edge survey ☒ Partial survey ☐ Full survey ☐ Area observed (m²): _____
EFFORT: Time spent surveying (minutes): 0 No. of minutes spent / 100 m²: _____
POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☐ Count method: _____
(Refer to field manual for list)
WHAT COUNTED: Plants ☐ Clumps ☐ Clonal stems ☐

TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>1</u>			<u>1</u>
Dead				

Area of pop (m²): _____
Note: Pls record count as numbers (not percentages) for database.
QUADRATS PRESENT: No. _____ Size _____ Data attached ☐ Total area of quadrats (m²): _____
Summary Quad. Totals: Alive

--	--	--	--

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☐ Flowerbud ☐ Flower ☐
Immature fruit ☐ Fruit ☐ Dehiscent fruit ☐ Percentage in flower: 0%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐
COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Euclayptus marginata Woodland over Hakea cucculata dominated Kwongkan Shrubland

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Dieback present

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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TAXON: <u>Leucopogon elegans subsp. psorophyllus</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>5/12/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway, SLK 48.0, west side of road

Reserve No: <u>26550</u>	
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u> Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.791525</u>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.272979</u>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>
METHOD USED:	
GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
No. satellites: _____ Map used: _____	
Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE:	
Nature reserve <input type="checkbox"/> Timber reserve <input type="checkbox"/> Private property <input type="checkbox"/> Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/> National park <input checked="" type="checkbox"/> State forest <input type="checkbox"/> Pastoral lease <input type="checkbox"/> MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/> Conservation park <input type="checkbox"/> Water reserve <input type="checkbox"/> UCL <input type="checkbox"/> SLK/Pole _____ to _____ Specify other: _____	

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____													
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____													
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)													
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>												
TOTAL POP'N STRUCTURE:													
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> <tr> <td>10</td> <td></td> <td></td> <td>10</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Mature:	Juveniles:	Seedlings:	Totals:	10			10				
Mature:	Juveniles:	Seedlings:	Totals:										
10			10										
Area of pop (m ²): _____	Note: Pls record count as numbers (not percentages) for database.												
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____												
Summary Quad. Totals: Alive													
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>												

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific Landform Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia baxteri Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Dieback present

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Voucher Coll. No. DAR1037

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Leucopogon elegans subsp. psorophyllus</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>16/10/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Green Range, 'Warriup' bluegum plantation block, 7.2 km NE of intersection of South Coast Highway and Warriup Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
DATUM:		COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.676108</u>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.385376</u>	No. satellites: _____ Map used: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>1</u>		<u>1</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>100%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia baxteri Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Voucher Coll No. DAR1038

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Latrobea recurva</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>12/10/2015</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 64.6, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.657163</u>		No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.337527</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>8</u>		<u>8</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____ (Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION

CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Latrobea recurva</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>12/10/2015</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 63.4 to 63.6, west side of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.665954</u>	No. satellites: _____	Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.331549</u>	Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT:	Edge survey <input checked="" type="checkbox"/>	Partial survey <input type="checkbox"/>	Full survey <input type="checkbox"/>	Area observed (m ²): _____
EFFORT:	Time spent surveying (minutes): <u>60</u>	No. of minutes spent / 100 m ² : _____		
POP'N COUNT ACCURACY:	Actual <input type="checkbox"/>	Extrapolation <input type="checkbox"/>	Estimate <input type="checkbox"/>	Count method: _____ (Refer to field manual for list)
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>5</u>			<u>5</u>
Dead				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____					
(Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION

CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Latrobea recurva</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>3/10/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. Track leading east at SLK 63.3

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.668912</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.333127</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____													
EFFORT: Time spent surveying (minutes): <u>60</u>	No. of minutes spent / 100 m ² : _____												
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)													
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>												
TOTAL POP'N STRUCTURE:													
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> <tr> <td>89</td> <td></td> <td></td> <td>89</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Mature:	Juveniles:	Seedlings:	Totals:	89			89				
Mature:	Juveniles:	Seedlings:	Totals:										
89			89										
Area of pop (m ²): _____	Note: Pls record count as numbers (not percentages) for database.												
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____												
Summary Quad. Totals: Alive													
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>												

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia attenuata Shrubland over Melaleuca striata, Melaleuca thymoides and Anarthria scabra
- 2.
- 3.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Dieback present

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>1</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Hassell National Park, South Coast Highway SLK 61.4 to 63.3. North and south side of the road on old tracks and in undisturbed vegetation.

Reserve No: 26650

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input checked="" type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.667945</u>	No. satellites: <u> </u> Map used: <u> </u>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.331346</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: <u> </u>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole <u> </u> to <u> </u>
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: <u> </u>

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): <u> </u>				
EFFORT: Time spent surveying (minutes): <u>1000</u>		No. of minutes spent / 100 m ² : <u> </u>		
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: <u> </u> (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>233</u>	<u> </u>	<u> </u>	<u>233</u>
Dead	<u> </u>	<u> </u>	<u> </u>	<u> </u>
Area of pop (m ²): <u> </u> Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. <u> </u>	Size <u> </u>	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): <u> </u>
Summary Quad. Totals: Alive	<u> </u>	<u> </u>	<u> </u>	<u> </u>
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: Some dead plants seen, potentially due to Phytophthora

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	<u> </u>	<u> </u>
• Phytophthora	L	?	<u> </u>
•	<u> </u>	<u> </u>	<u> </u>

Please return completed form to **Species And Communities Branch DBCA**,
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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: Sheet No.: Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input checked="" type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>		Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	30-50% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____	50-100% <input type="checkbox"/>	Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Tall Shrubland 3 - 4m, 30-70% (Hakea cucculata)
2. Shrubland 1m, 30-70% (Banksia mucronulata, Melaleuca striata, Taxandria spathulata)
- 3.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - Accession number PERTH 08342652 and PERTH 09087230

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>2</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): <u>'Wimbush' farm, W side of South Coast Highway</u>	
Reserve No: _____	
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u> Land manager present: <input type="checkbox"/>
DATUM: GDA94 / MGA94 <input checked="" type="checkbox"/> AGD84 / AMG84 <input type="checkbox"/> WGS84 <input type="checkbox"/> Unknown <input type="checkbox"/>	COORDINATES: (If UTM coords provided, Zone is also required) DecDegrees <input type="checkbox"/> DegMinSec <input checked="" type="checkbox"/> UTM <input type="checkbox"/> Lat / Northing: <u>34° 40' 16.0" S</u> Long / Easting: <u>118° 19' 15.3" E</u> ZONE: <u>50</u>
METHOD USED: GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/> No. satellites: _____ Map used: _____ Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE: Nature reserve <input type="checkbox"/> Timber reserve <input type="checkbox"/> Private property <input checked="" type="checkbox"/> Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/> National park <input type="checkbox"/> State forest <input type="checkbox"/> Pastoral lease <input type="checkbox"/> MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/> Conservation park <input type="checkbox"/> Water reserve <input type="checkbox"/> UCL <input type="checkbox"/> SLK/Pole _____ to _____ Specify other: _____	

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____																
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____																
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)																
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>															
TOTAL POP'N STRUCTURE:	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> </thead> <tbody> <tr> <td>Alive</td> <td><u>1</u></td> <td></td> <td></td> <td><u>1</u></td> </tr> <tr> <td>Dead</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Mature:	Juveniles:	Seedlings:	Totals:	Alive	<u>1</u>			<u>1</u>	Dead				
	Mature:	Juveniles:	Seedlings:	Totals:												
Alive	<u>1</u>			<u>1</u>												
Dead																
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____ Summary Quad. Totals: Alive <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>																
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: _____%																

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____ (Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Degraded Woodland of Euclayptus marginata

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☒ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - DAR1012 Accession number PERTH 09039678

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>3</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): <u>Green Range, 'Warriup' bluegum plantation block, 7.2 km NE of intersection of South Coast Highway and Warriup Road</u>			
Reserve No: _____			
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input type="checkbox"/> DegMinSec <input checked="" type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>34° 40' 12.2" S</u>	No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118° 22' 50.2" E</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>120</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>30</u>			<u>30</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS:	Healthy <input checked="" type="checkbox"/>	Moderate <input type="checkbox"/>	Poor <input type="checkbox"/>	Senescent <input type="checkbox"/>
COMMENT:	<u>S</u>			

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Woodland (<10 m, 10-30%) Eucalyptus marginata over shrubland (1-2 m, 30-70%) Banksia mucronulata, Melaleuca striata and Agonis theiformis.

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT: Narrow corridor of remnant vegetation.

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - Coll. No. DAR1010 Accession number PERTH 09039643

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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Version 1.3 August 2017

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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>4</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Green Range, 'Warriup' bluegum plantation block (eastern edge), 7.2 km NE of intersection of South Coast Highway and Warriup Road

Reserve No: _____

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.672806</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.392805</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>120</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>50</u>			<u>50</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Woodland (<10 m, 10-30%) Eucalyptus marginata over shrubland (1-2 m, 30-70%) Banksia mucronulata, Melaleuca striata and Agonis theiformis.

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - Coll. No. DAR1010 Accession number PERTH 09039643

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA,**

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RECORDS: Please forward to **Flora Administrative Officer,** Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>5</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Green Range, 'Warriup' bluegum plantation block (central), 7.2 km NE of intersection of South Coast Highway and Warriup Road

Reserve No: _____

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.675948</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.387418</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>120</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>105</u>			<u>105</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Woodland (<10 m, 10-30%) Eucalyptus marginata over shrubland (1-2 m, 30-70%) Banksia mucronulata, Melaleuca striata and Agonis theiformis.

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - Coll. No. 1010 Accession number PERTH 09039643

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>6</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Green Range, 'Katherine' bluegum plantation block, 9.3 km ENE of intersection of South Coast Highway and Warriup Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>34° 40' 48.3" S</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118° 24' 56.8" E</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>120</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>49</u>		<u>49</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Open Mallee Shrubland (Euclayptus marginata, Calothanus quadrifidus, Thryptomene saxicola, Prostanthera verticillaris).

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Existing Voucher - Coll. No. 1011 Accession number PERTH 09039651

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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Version 1.3 August 2017

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TAXON: <u>Leucopogon sp. Manypeaks (A.S. George 6488)</u>	TPFL Pop. No: <u>7(abc?)</u>
OBSERVATION DATE: <u>7/12/2018</u>	CONSERVATION STATUS: <u>P1</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Green Range, 'Adamson' bluegum plantation block, 11.2 km ENE of intersection of South Coast Highway and Warriup Road
Southern edge of native vegetation on southern slope of Green Range.

Reserve No: _____

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>34° 40' 45.8" S</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118° 26' 15.0" E</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>120</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>626</u>		<u>626</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Low open Taxandria spathulata heath.

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Potentially warranted to differentiate 3 sub populations (three patches occur within 500 m)

Existing Voucher - Coll. No. 1013 Accession number PERTH 09039686

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Petrophile carduacea</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>7/12//2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 61.4 to 63.3. North side of the road.

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: <u>26650</u>
DATUM:		COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.747359</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input checked="" type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.309143</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>2</u>		<u>2</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
• Clearing	N	_____	_____
• Phytophthora	L	?	_____
•	_____	_____	_____

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input checked="" type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input checked="" type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific Landform Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Tall Shrubland 3 - 4m, 30-70% (Hakea cucculata)
2. Shrubland 1m, 30-70% (Banksia mucronulata, Melaleuca striata, Taxandria spathulata)
- 3.
- 4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT: Roadside batter

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Stylidium daphne</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>29/11/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 60.6 to 62.1, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No.: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.683896</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.329501</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>37</u>		<u>37</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Stylidium daphne</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>1/12/2017</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway interect Drawbin Rd. SLK 58.65

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____	
		Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:		
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>		
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.683896</u>		No. satellites: _____ Map used: _____		
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.329501</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____		
Unknown <input type="checkbox"/>	ZONE: <u>50</u>				
LAND TENURE:					
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>	
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>	
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____	

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____					
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____					
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)					
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>		
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	
Alive	<u>19</u>			<u>19</u>	Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.
Dead					
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____	
Summary Quad. Totals: Alive					
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>	
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>	

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Version 1.3 August 2017

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TAXON: <u>Stylidium daphne</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>5/12/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. SLK 56.9

Reserve No: _____	
DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u> Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.722593</u>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.317976</u>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>
METHOD USED:	
GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
No. satellites: _____ Map used: _____	
Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
LAND TENURE:	
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/> Private property <input type="checkbox"/> Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/> Pastoral lease <input type="checkbox"/> MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/> UCL <input type="checkbox"/> SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____	
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)	
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature: Juveniles: Seedlings: Totals:
Alive	<u>4</u> <u></u> <u></u> <u>4</u>
Dead	<u></u> <u></u> <u></u> <u></u>
Area of pop (m ²): _____	
Note: Pls record count as numbers (not percentages) for database.	
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive	<u></u> <u></u> <u></u> <u></u>
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

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 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Stylidium daphne</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>21/11/2017</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway intersect Bluff Creek Rd. Track leading west at SLK 52.5

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No.: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.759035</u>	No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.300528</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>5</u>		<u>5</u>
Dead			
Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: Recently slashed edge of track

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Stylidium daphne</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>20/11/2017</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 45.8 to 47.7 both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.802873</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.262796</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____		
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>21</u>			<u>21</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Version 1.3 August 2017

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TAXON:	Stylidium daphne	TPFL Pop. No:	
OBSERVATION DATE:	16/10/2018	CONSERVATION STATUS:	P2 New population <input checked="" type="checkbox"/>
OBSERVER/S:	Damien Rathbone	PHONE:	0408 802 404
ROLE:	Consultant Ecologist	ORGANISATION:	Southern Ecology on behalf of Main Roads WA

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Remnant vegetation in Burcher Plantation Block (PFOlsen).

Reserve No:

DBC DISTRICT:	Albany	LGA:	City of Albany	Land manager present:	<input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:			
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/>	Differential GPS <input type="checkbox"/>	Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing:	-34.692083		No. satellites:	Map used:	
WGS84 <input type="checkbox"/>	Long / Easting:	118.365923		Boundary polygon captured: <input type="checkbox"/>	Map scale:	
Unknown <input type="checkbox"/>	ZONE:	50				
LAND TENURE:						
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>		
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>		
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____		

AREA ASSESSMENT: Edge survey ☒ Partial survey ☐ Full survey ☐ Area observed (m²):

EFFORT: Time spent surveying (minutes): 60 No. of minutes spent / 100 m²:

POP'N COUNT ACCURACY: Actual ☐ Extrapolation ☐ Estimate ☐ Count method: _____
(Refer to field manual for list)

WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	12			12
Dead				
				Area of pop (m ²):
				Note: Pls record count as numbers (not percentages) for database.

QUADRATS PRESENT: No. _____ Size _____ Data attached ☐ Total area of quadrats (m²):

Summary Quad. Totals: Alive				
------------------------------------	--	--	--	--

REPRODUCTIVE STATE: Clonal ☐ Vegetative ☐ Flowerbud ☐ Flower ☒
Immature fruit ☐ Fruit ☐ Dehiscent fruit ☐ Percentage in flower: 90%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
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•			

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata and Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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TAXON: <u>Stylidium gloeophyllum</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>20/11/2017</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 47.5 to 47.8, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.793639</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.271324</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____													
EFFORT: Time spent surveying (minutes): <u>120</u>	No. of minutes spent / 100 m ² : _____												
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)													
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>												
TOTAL POP'N STRUCTURE:													
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> <tr> <td>384</td> <td></td> <td></td> <td>384</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Mature:	Juveniles:	Seedlings:	Totals:	384			384				
Mature:	Juveniles:	Seedlings:	Totals:										
384			384										
Area of pop (m ²): _____	Note: Pls record count as numbers (not percentages) for database.												
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____												
Summary Quad. Totals: Alive													
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>												

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
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Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____ (Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Stylidium gloeophyllum</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>20/11/2017</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 46.7 to 47.0, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.800942</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.265543</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/>		Area observed (m ²): _____	
EFFORT: Time spent surveying (minutes): <u>120</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/>		Count method: _____ (Refer to field manual for list)	
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>828</u>		<u>828</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____		Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:			
Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific Landform Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata and Taxandria spathulata Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Stylidium gloeophyllum</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 46.1 to 46.25, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.804259</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.261455</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>10</u>			<u>10</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____ (Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata and Taxandria spathulata Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Synaphea incurva</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>27/11/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway intersect Bluff Creek Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No.: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.759053</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.30105</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>41</u>		<u>41</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input checked="" type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT: some plants on slashed road edge

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Voucher Coll No. DAR1039

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea incurva</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>21/11/2017</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. Track heading west ast SLK 51.1

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No.: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.768238</u>	No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.292654</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____															
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____															
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)															
WHAT COUNTED: Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>															
TOTAL POP'N STRUCTURE:															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> </thead> <tbody> <tr> <td>Alive</td> <td><u>1</u></td> <td></td> <td></td> <td><u>1</u></td> </tr> <tr> <td>Dead</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Mature:	Juveniles:	Seedlings:	Totals:	Alive	<u>1</u>			<u>1</u>	Dead				
	Mature:	Juveniles:	Seedlings:	Totals:											
Alive	<u>1</u>			<u>1</u>											
Dead															
Area of pop (m ²): _____															
Note: Pls record count as numbers (not percentages) for database.															
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____															
Summary Quad. Totals: Alive															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>															
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>															
Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>															

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input checked="" type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea incurva</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>21/11/2017</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. Rest area at SLK 49.5

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.780871</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.283413</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>7</u>		<u>7</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input checked="" type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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Version 1.3 August 2017

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TAXON: <u>Synaphea incurva</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>26/11/2018</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. SLK 48.65

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.786865</u>		GPS <input checked="" type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.277784</u>		Differential GPS <input type="checkbox"/>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Map <input type="checkbox"/>
		No. satellites: _____	Map used: _____
		Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____
		Shire road reserve <input type="checkbox"/>	
		Other Crown reserve <input type="checkbox"/>	
		Specify other: _____	

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>5</u>		<u>5</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input checked="" type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☐ Degraded ☒ Completely degraded ☐

COMMENT: Plants in road side drain

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

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Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea incurva</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>27/11/2017</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. SLK 47.6 to 47.73 west side of road.

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.794134</u>	No. satellites: _____	Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.270906</u>	Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____		(Refer to field manual for list)	
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>172</u>		<u>172</u>
Dead			
Area of pop (m ²): _____			
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata dominated Kwongkan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☒ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea incurva</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>27/11/2017</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Bluff Creek Road, 500m east of South Coast Highway

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.760294</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.303148</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input checked="" type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>35</u>			<u>35</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Synaphea incurva</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>27/11/2017</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Bluff Creek Road, 1.3km east of South Coast Highway

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____	
		Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:		
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>		
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.769384</u>		No. satellites: _____ Map used: _____		
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.316684</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____		
Unknown <input type="checkbox"/>	ZONE: <u>50</u>				
LAND TENURE:					
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input checked="" type="checkbox"/>	
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>	
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____	

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____					
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____					
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)					
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>		
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.
Alive	40			40	
Dead					
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____	
Summary Quad. Totals: Alive					
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>	
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>	

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

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 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☒ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea preissii</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. Track heading west at SLK 64.9

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.654194</u>		GPS <input checked="" type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.338649</u>		Differential GPS <input type="checkbox"/>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Map <input type="checkbox"/>
		No. satellites: _____	Map used: _____
		Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____
		Shire road reserve <input type="checkbox"/>	
		Other Crown reserve <input type="checkbox"/>	
		Specify other: _____	

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>1</u>		<u>1</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: _____%			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Low heath with Xanthorrhoea platyphylla, Banksia armata.

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Synaphea preissii</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>22/11/2018</u>	CONSERVATION STATUS: <u>P3</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 60.0 to 60.9, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: <u>26650</u>
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.689414</u>	No. satellites: _____	Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.328899</u>	Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>22</u>		<u>22</u>
Dead			
Area of pop (m ²): _____			
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: _____%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongan Shrublands

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Voucher Coll no. DAR1040

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Synaphea preissii</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>22/11/2018</u>	CONSERVATION STATUS: <u>P3</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 54.65

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.741799</u>		GPS <input checked="" type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.311643</u>		Differential GPS <input type="checkbox"/>
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Map <input type="checkbox"/>
		No. satellites: _____	Map used: _____
		Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____
		Shire road reserve <input type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
		Specify other: _____	

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____		(Refer to field manual for list)	
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>10</u>		<u>10</u>
Dead			
Area of pop (m ²): _____			
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>
Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Flower <input type="checkbox"/>
Percentage in flower: _____%			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata dominated Kwongkan Shrublands

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Spyridium riparium</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>2/11/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 64.1 east side of road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.660611</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.335482</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>1</u>			<u>1</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input checked="" type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION

CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Voucher - Coll no. DAR1036

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Spyridium riparium</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>30/10/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Green Range, 'Katherine' bluegum plantation block, 9.3 km ENE of intersection of South Coast Highway and Warriup Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>34° 40' 48.3" S</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118° 24' 56.8" E</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input checked="" type="checkbox"/> Area observed (m ²): _____													
EFFORT: Time spent surveying (minutes): <u>120</u>	No. of minutes spent / 100 m ² : _____												
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)													
WHAT COUNTED:	Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>												
TOTAL POP'N STRUCTURE:													
	<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> <tr> <td>100</td> <td></td> <td></td> <td>100</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>	Mature:	Juveniles:	Seedlings:	Totals:	100			100				
Mature:	Juveniles:	Seedlings:	Totals:										
100			100										
Area of pop (m ²): _____	Note: Pls record count as numbers (not percentages) for database.												
QUADRATS PRESENT:	No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____												
Summary Quad. Totals: Alive													
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>												

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input checked="" type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Open Mallee Shrubland (Euclayptus marginata, Calothanus quadrifidus, Thryptomene saxicola, Prostanthera verticillaris).

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Voucher - Coll no. DAR1034

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

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Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Spyridium riparium</u>	TPFL Pop. No.: _____
OBSERVATION DATE: <u>2/11/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Green Range, 'Adamson' bluegum plantation block, 11.2 km ENE of intersection of South Coast Highway and Warriup Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No.: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.67943</u>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.437016</u>		No. satellites: _____ Map used: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>100</u>		<u>100</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

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 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input checked="" type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Open Mallee Shrubland (Euclayptus marginata, Calothanus quadrifidus, Thryptomene saxicola, Prostanthera verticillaris).

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Voucher - Coll no. DAR1035

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Stenanthemum sublineare</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 64.7 west side of road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____	
				Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:		
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>		
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.655939</u>		No. satellites: _____ Map used: _____		
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.337527</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____		
Unknown <input type="checkbox"/>	ZONE: <u>50</u>				
LAND TENURE:					
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>	
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>	
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____	

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>60</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>13</u>			<u>13</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Stenanthemum sublineare</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): _____

Hassell National Park, South Coast Highway SLK 64.7 west side of road

Reserve No: _____

DBC DISTRICT: <u>Albany</u>	LGA: <u>City of Albany</u>	Land manager present: <input type="checkbox"/>
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.655939</u>	No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.337527</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>	
LAND TENURE:		
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____
		Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
		MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
		Specify other: _____

AREA ASSESSMENT:	Edge survey <input type="checkbox"/>	Partial survey <input checked="" type="checkbox"/>	Full survey <input type="checkbox"/>	Area observed (m ²): _____
EFFORT:	Time spent surveying (minutes): <u>60</u>	No. of minutes spent / 100 m ² : _____		
POP'N COUNT ACCURACY:	Actual <input type="checkbox"/>	Extrapolation <input type="checkbox"/>	Estimate <input type="checkbox"/>	Count method: _____ (Refer to field manual for list)
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>13</u>			<u>13</u>
Dead				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION

CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. _____
2. _____
3. _____
4. _____

ASSOCIATED

SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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TAXON: <u>Stenanthemum sublineare</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>13/11/2017</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway. Tracks running west at SLK 61.2

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.68533</u>		No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.329389</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>7</u>		<u>7</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/> Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>			

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
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HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Eucalyptus marginata and Allacuarina fraseriana

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: 2017 Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Version 1.3 August 2017

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TAXON: <u>Stenanthemum sublineare</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>5/12/2018</u>	CONSERVATION STATUS: <u>P2</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 56.9, west side of road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.68533</u>	No. satellites: _____	Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.318087</u>	Boundary polygon captured: <input type="checkbox"/>	Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>1</u>		<u>1</u>
Dead			
Area of pop (m ²): _____			
Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata dominated Kwongkan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON: <u>Stenanthemum sublineare</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>5/12/2018</u>	CONSERVATION STATUS: <u>P2</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place): _____
Remnant vegetation on Burcher Bluegum Plantation Block (PFOlsen)

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>		GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.693351</u>		No. satellites: _____ Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.361502</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input checked="" type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input type="checkbox"/> Partial survey <input checked="" type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>60</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>11</u>		<u>11</u>
Dead			
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____			
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•	_____	_____	_____
•	_____	_____	_____
•	_____	_____	_____

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input checked="" type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific Landform Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Banksia mucronulata dominated Kwongan Heath

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☒ Very good ☐ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

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TAXON:	Sphaerolobium validum	TPFL Pop. No:	
OBSERVATION DATE:	30/11/2018	CONSERVATION STATUS:	P3 New population <input checked="" type="checkbox"/>
OBSERVER/S:	Damien Rathbone	PHONE:	0408 802 404
ROLE:	Consultant Ecologist	ORGANISATION:	Southern Ecology on behalf of Main Roads WA

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Hassell National Park, South Coast Highway, SLK 63.0

Reserve No:

DBC DISTRICT:	Albany	LGA:	City of Albany	Land manager present:	<input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:			
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/>	Differential GPS <input type="checkbox"/>	Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: -34.669493		No. satellites: _____			Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: 118.32999		Boundary polygon captured: <input type="checkbox"/>			Map scale: _____
Unknown <input type="checkbox"/>	ZONE: 50					
LAND TENURE:						
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>		
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>		
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____		

AREA ASSESSMENT:	Edge survey <input checked="" type="checkbox"/>	Partial survey <input type="checkbox"/>	Full survey <input type="checkbox"/>	Area observed (m²):	_____
EFFORT:	Time spent surveying (minutes): 0		No. of minutes spent / 100 m²: _____		
POP'N COUNT ACCURACY:	Actual <input type="checkbox"/>	Extrapolation <input type="checkbox"/>	Estimate <input type="checkbox"/>	Count method:	_____
(Refer to field manual for list)					
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>		
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	
Alive	7			7	Area of pop (m²): _____ Note: Pls record count as numbers (not percentages) for database.
Dead					
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m²): _____	
Summary Quad. Totals: Alive					
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>	
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input checked="" type="checkbox"/>	Percentage in flower: _____%	

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input checked="" type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input checked="" type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucullata dominated Kwongkan Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Voucher Coll. No. DAR1043

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☒ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch** DBCA,

Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

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TAXON: Tetraria sp. Blackwood River (A.R. Annels 3043)	TPFL Pop. No: _____
OBSERVATION DATE: 22/10/2015	CONSERVATION STATUS: P3 New population <input checked="" type="checkbox"/>
OBSERVER/S: Damien Rathbone	PHONE: 0408 802 404
ROLE: Consultant Ecologist	ORGANISATION: Southern Ecology on behalf of Main Roads WA

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 63.7 to 64.5, west side of road

DBC DISTRICT: Albany		LGA: City of Albany		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: -34.659108		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: 118.336052		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: 50			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): 0 No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	126			126
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: _____%

CONDITION OF PLANTS: Healthy ☐ Moderate ☒ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input checked="" type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input checked="" type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input checked="" type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific Landform Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☐ Moist ☒ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Eucalyptus occidentalis Woodland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 Australian Soil and Land Survey Field Handbook guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON:	Tetraria sp. Blackwood River (A.R. Annels 3043)		TPFL Pop. No:	
OBSERVATION DATE:	22/10/2015	CONSERVATION STATUS:	P3	New population <input checked="" type="checkbox"/>
OBSERVER/S:	Damien Rathbone		PHONE:	0408 802 404
ROLE:	Consultant Ecologist		ORGANISATION:	Southern Ecology on behalf of Main Roads WA

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):

Hassell National Park, South Coast Highway SLK 62.4

Reserve No:

DBC DISTRICT:	Albany	LGA:	City of Albany	Land manager present:	<input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:			
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/>	Differential GPS <input type="checkbox"/>	Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: -34.675246		No. satellites: _____			Map used: _____
WGS84 <input type="checkbox"/>	Long / Easting: 118.330197		Boundary polygon captured: <input type="checkbox"/>			Map scale: _____
Unknown <input type="checkbox"/>	ZONE: 50					
LAND TENURE:						
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>		
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>		
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____		

AREA ASSESSMENT:	Edge survey <input checked="" type="checkbox"/>	Partial survey <input type="checkbox"/>	Full survey <input type="checkbox"/>	Area observed (m ²):	_____
EFFORT:	Time spent surveying (minutes): 0		No. of minutes spent / 100 m ² : _____		
POP'N COUNT ACCURACY:	Actual <input type="checkbox"/>	Extrapolation <input type="checkbox"/>	Estimate <input type="checkbox"/>	Count method:	_____
(Refer to field manual for list)					
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>		
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:	
Alive	10			10	Area of pop (m ²): _____
Dead					Note: Pls record count as numbers (not percentages) for database.
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____	
Summary Quad. Totals: Alive					
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>	
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: _____%	

CONDITION OF PLANTS: Healthy ☐ Moderate ☒ Poor ☐ Senescent ☐

COMMENT:

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

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Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input checked="" type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input checked="" type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input checked="" type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input checked="" type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Eucalyptus conferruminata and E. incrassata Open Mallee

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☒ Good ☐ Degraded ☐ Completely degraded ☐

COMMENT:

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☐

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.) _____

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

Please return completed form to **Species And Communities Branch DBCA**,
Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 OR email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Xanthosia eichleri</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>2/10/2018</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 62.4 to 62.9, both sides of the road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
		Land manager present: <input type="checkbox"/>	
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.673888</u>	No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.32954</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____															
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____															
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)															
WHAT COUNTED: Plants <input type="checkbox"/> Clumps <input type="checkbox"/> Clonal stems <input type="checkbox"/>															
TOTAL POP'N STRUCTURE:															
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th></th> <th>Mature:</th> <th>Juveniles:</th> <th>Seedlings:</th> <th>Totals:</th> </tr> </thead> <tbody> <tr> <td>Alive</td> <td><u>26</u></td> <td></td> <td></td> <td><u>26</u></td> </tr> <tr> <td>Dead</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>		Mature:	Juveniles:	Seedlings:	Totals:	Alive	<u>26</u>			<u>26</u>	Dead				
	Mature:	Juveniles:	Seedlings:	Totals:											
Alive	<u>26</u>			<u>26</u>											
Dead															
Area of pop (m ²): _____															
Note: Pls record count as numbers (not percentages) for database.															
QUADRATS PRESENT: No. _____ Size _____ Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____															
Summary Quad. Totals: Alive															
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td></td> <td></td> <td></td> <td></td> </tr> </table>															
REPRODUCTIVE STATE: Clonal <input type="checkbox"/> Vegetative <input type="checkbox"/> Flowerbud <input type="checkbox"/> Flower <input checked="" type="checkbox"/>															
Immature fruit <input type="checkbox"/> Fruit <input type="checkbox"/> Dehiscent fruit <input type="checkbox"/> Percentage in flower: <u>90%</u>															

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
•			
•			
•			

Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					

Specific **Landform** Element: _____
(Refer to field manual for additional values)

CONDITION OF SOIL: Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Open Mallee and Hakea cucullata Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT: Plants on edge of road and offshoot drains

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

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SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



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TAXON: <u>Xanthosia eichleri</u>	TPFL Pop. No: _____
OBSERVATION DATE: <u>2/10/2018</u>	CONSERVATION STATUS: <u>P4</u> New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>	PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway interest Drawbin Road

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>		Reserve No: _____
Land manager present: <input type="checkbox"/>				
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)		METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/>	DegMinSec <input type="checkbox"/>	UTMs <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.70737</u>		No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.321845</u>		Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>			
LAND TENURE:				
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/>	Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/>	Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/>	SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____				
EFFORT: Time spent surveying (minutes): <u>0</u> No. of minutes spent / 100 m ² : _____				
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)				
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>	
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:	Totals:
Alive	<u>8</u>			<u>8</u>
Dead				
Area of pop (m ²): _____				
Note: Pls record count as numbers (not percentages) for database.				
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/>	Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive				
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/>	Flower <input type="checkbox"/>
	Immature fruit <input type="checkbox"/>	Fruit <input type="checkbox"/>	Dehiscent fruit <input type="checkbox"/>	Percentage in flower: _____%

CONDITION OF PLANTS: Healthy ☒ Moderate ☐ Poor ☐ Senescent ☐

COMMENT: _____

THREATS - type, agent and supporting information:	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
Eg clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents. Specify agent where relevant. Rate current and potential threat impact: N=Nil, L=Low, M=Medium, H=High, E=Extreme Estimate time to potential impact: S=Short (<12mths), M=Medium (<5yrs), L=Long (5yrs+)			
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Please return completed form to **Species And Communities Branch DBCA**,
 Locked Bag 104, BENTLEY DELIVERY CENTRE WA 6983 **OR** email to: flora.data@dbca.wa.gov.au

RECORDS: Please forward to **Flora Administrative Officer**, Species and Communities Branch.

Record entered by: _____ Sheet No.: _____ Record Entered in Database ☐



Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:	ROCK TYPE:	LOOSE ROCK:	SOIL TYPE:	SOIL COLOUR:	DRAINAGE:
Crest <input type="checkbox"/>	Granite <input type="checkbox"/>	(on soil surface; eg gravel, quartz fields)	Sand <input checked="" type="checkbox"/>	Red <input type="checkbox"/>	Well drained <input type="checkbox"/>
Hill <input type="checkbox"/>	Dolerite <input type="checkbox"/>		Sandy loam <input type="checkbox"/>	Brown <input type="checkbox"/>	Seasonally inundated <input type="checkbox"/>
Ridge <input type="checkbox"/>	Laterite <input checked="" type="checkbox"/>	0-10% <input checked="" type="checkbox"/>	Loam <input type="checkbox"/>	Yellow <input type="checkbox"/>	Permanently inundated <input type="checkbox"/>
Outcrop <input type="checkbox"/>	Ironstone <input type="checkbox"/>	10-30% <input type="checkbox"/>	Clay loam <input type="checkbox"/>	White <input checked="" type="checkbox"/>	Tidal <input type="checkbox"/>
Slope <input checked="" type="checkbox"/>	Limestone <input type="checkbox"/>	30-50% <input type="checkbox"/>	Light clay <input type="checkbox"/>	Grey <input type="checkbox"/>	
Flat <input type="checkbox"/>	Quartz <input type="checkbox"/>	50-100% <input type="checkbox"/>	Peat <input type="checkbox"/>	Black <input type="checkbox"/>	
Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
Specific Landform Element: _____					
(Refer to field manual for additional values)					
CONDITION OF SOIL:	Dry <input checked="" type="checkbox"/>	Moist <input type="checkbox"/>	Waterlogged <input type="checkbox"/>	Inundated <input type="checkbox"/>	

VEGETATION CLASSIFICATION*:

Eg: 1. Banksia woodland (B. attenuata, B. ilicifolia);
2. Open shrubland (Hibbertia sp., Acacia spp.);
3. Isolated clumps of sedges (Mesomelaena tetragona)

1. Hakea cucculata Shrubland

2.

3.

4.

ASSOCIATED SPECIES:

Other (non-dominant) spp _____

* Please record up to four of the most representative vegetation layers (with up to three dominant species in each layer). Structural Formations should follow 2009 *Australian Soil and Land Survey Field Handbook* guidelines – refer to field manual for further information and structural formation table.

CONDITION OF HABITAT: Pristine ☐ Excellent ☐ Very good ☐ Good ☒ Degraded ☐ Completely degraded ☐

COMMENT: Plants on edge of road in previously slashed vegetation

FIRE HISTORY: Last Fire: Season/Month: _____ Year: _____ Fire Intensity: High ☐ Medium ☐ Low ☐ No signs of fire ☒

FENCING: Not required ☐ Present ☐ Replace / repair ☐ Required ☐ Length req'd: _____

ROADSIDE MARKERS: Not required ☐ Present ☐ Replace / reposition ☐ Required ☐ Quantity req'd: _____

OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

DRF PERMIT/ LICENCE No: SL012382

Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licensing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

SPECIMEN: Collectors No: _____ WA Herb. ☐ Regional Herb. ☐ District Herb. ☐ Other: _____

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☒ Field notes ☐ Other: _____

COPY SENT TO: Regional Office ☐ District Office ☒ Other: _____

Submitter of Record: Damien Rathbone Role: Southern Ecology - Ecologist Signed: DR Date: 20/04/2019

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Please complete as much of the form as possible, with emphasis on those sections bordered in black. For information on how to complete the form please refer to the Threatened & Priority Flora Report Form (TPRF) manual on the DBCA website at <http://dpaw.wa.gov.au/> under *Standard Report Forms*

TAXON: <u>Xanthosia eichleri</u>		TPFL Pop. No: _____
OBSERVATION DATE: <u>22/10/2015</u>	CONSERVATION STATUS: <u>P4</u>	New population <input checked="" type="checkbox"/>
OBSERVER/S: <u>Damien Rathbone</u>		PHONE: <u>0408 802 404</u>
ROLE: <u>Consultant Ecologist</u>	ORGANISATION: <u>Southern Ecology on behalf of Main Roads WA</u>	

DESCRIPTION OF LOCATION (Provide at least nearest town/named locality, and the distance and direction to that place):
Hassell National Park, South Coast Highway SLK 49.4

DBC DISTRICT: <u>Albany</u>		LGA: <u>City of Albany</u>	Reserve No: _____
Land manager present: <input type="checkbox"/>			
DATUM:	COORDINATES: (If UTM coords provided, Zone is also required)	METHOD USED:	
GDA94 / MGA94 <input checked="" type="checkbox"/>	DecDegrees <input checked="" type="checkbox"/> DegMinSec <input type="checkbox"/> UTM <input type="checkbox"/>	GPS <input checked="" type="checkbox"/> Differential GPS <input type="checkbox"/> Map <input type="checkbox"/>	
AGD84 / AMG84 <input type="checkbox"/>	Lat / Northing: <u>-34.781447</u>	No. satellites: _____ Map used: _____	
WGS84 <input type="checkbox"/>	Long / Easting: <u>118.282024</u>	Boundary polygon captured: <input type="checkbox"/> Map scale: _____	
Unknown <input type="checkbox"/>	ZONE: <u>50</u>		
LAND TENURE:			
Nature reserve <input type="checkbox"/>	Timber reserve <input type="checkbox"/>	Private property <input type="checkbox"/>	Rail reserve <input type="checkbox"/> Shire road reserve <input type="checkbox"/>
National park <input checked="" type="checkbox"/>	State forest <input type="checkbox"/>	Pastoral lease <input type="checkbox"/>	MRWA road reserve <input checked="" type="checkbox"/> Other Crown reserve <input type="checkbox"/>
Conservation park <input type="checkbox"/>	Water reserve <input type="checkbox"/>	UCL <input type="checkbox"/> SLK/Pole _____ to _____	Specify other: _____

AREA ASSESSMENT: Edge survey <input checked="" type="checkbox"/> Partial survey <input type="checkbox"/> Full survey <input type="checkbox"/> Area observed (m ²): _____			
EFFORT: Time spent surveying (minutes): <u>0</u>		No. of minutes spent / 100 m ² : _____	
POP'N COUNT ACCURACY: Actual <input checked="" type="checkbox"/> Extrapolation <input type="checkbox"/> Estimate <input type="checkbox"/> Count method: _____ (Refer to field manual for list)			
WHAT COUNTED:	Plants <input type="checkbox"/>	Clumps <input type="checkbox"/>	Clonal stems <input type="checkbox"/>
TOTAL POP'N STRUCTURE:	Mature:	Juveniles:	Seedlings:
Alive	<u>1</u>		<u>1</u>
Dead			
Area of pop (m ²): _____ Note: Pls record count as numbers (not percentages) for database.			
QUADRATS PRESENT:	No. _____	Size _____	Data attached <input type="checkbox"/> Total area of quadrats (m ²): _____
Summary Quad. Totals: Alive			
REPRODUCTIVE STATE:	Clonal <input type="checkbox"/>	Vegetative <input type="checkbox"/>	Flowerbud <input type="checkbox"/> Flower <input type="checkbox"/>
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COMMENT: _____

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Open depression <input type="checkbox"/>	Specify other: _____		Specify other: _____	Specify other: _____	
Drainage line <input type="checkbox"/>					
Closed depression <input type="checkbox"/>					
Wetland <input type="checkbox"/>					
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OTHER COMMENTS: (Please include recommended management actions and/or implemented actions - include date. Also include details of additional data available, and how to locate it.)

Recorded by GHD in 2015

DRF PERMIT/ LICENCE No: SL012382 Note if only observing plants (i.e. no specimens or plant material is taken) then no permit/licence is required. For further information on permit and licencing requirements see the Threatened Flora and Wildlife Licensing pages on DBCA's website. Any actions carried out under licence/permit should be recorded above in the OTHER COMMENTS section.

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