Lot 1 (34) Hair Place, North Boyanup

Extractive Industry Development Application & Licence

October 2025 | 22-368

element. | PART OF SLR

Acknowledgment of Country

We acknowledge the Whadjuk people of the Noongar nation as Traditional Custodians of the land on which we live and work.

We acknowledge and respect their enduring culture, their contribution to the life of this city, and Elders, past and present.

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1. Development Application Details

1.1 Development Application Details

Proposed development	Industry – Extractive
Applicant	**Element Advisory, Part of SLR (Element Advisory)**, on behalf of BCP Materials Pty Ltd
Landowner	Adrian McCauley Lucia McCauley
Type of approval sought	Development Application to be determined by the Development Assessment Panel (DAP Form 1)
Subject site	34 Hair Place, North Boyanup
Real property address	Lot 1 on Diagram 70775
Proposed Extraction Area	30.16Ha
Estimated Development value	$3,200,000

1.2 Planning Framework Details

Local Government Area	Capel (Shire of)
Region Scheme	Greater Bunbury Region Scheme (GBRS) – Rural Zone
Local Planning Scheme	Shire of Capel Local Planning Scheme No. 8 – Rural Zone
Land Use Permissibility	A (use not permitted unless the local government has exercised its discretion by granting development approval after advertising the application in accordance with clause 64 of the deemed provisions)
Aboriginal and/or Local Heritage Considerations	N/A
Environmental Considerations	– Existing scattered Native Vegetation onsite
Relevant State Planning Policy(s), Development Control Policy(s), Position Statements and/or Planning Bulletins	– SPP 2.4 Basic Raw Materials – SPP 3.7 Bushfire – Greater Bunbury Region Scheme Strategic Minerals and Basic Raw Materials Resource Policy (2018) – EPA Separation Distances between Industrial and Sensitive Land uses (GS3)
Local Planning Policies	– Local Planning Policy 6.2 – Extractive Industry
Local Law	– Shire of Capel Extractive Industry Local Law (2016)

2. Consultant List

This development application has been prepared by **Element Advisory, Part of SLR** on behalf of BCP Materials Ltd with input from the following specialist consultants:

Table 1. Consultant List

Discipline	Consultant
Planning Consultant	Element Advisory
Licensed Surveyor	Harley Dykstra
Environmental Consultants	MBS Environmental
Acoustic Consultant	Herring Storer
Hydrologist	JDA Consulting Hydrologists

3. Introduction

This Development Application (DA) has been prepared by Element Advisory on behalf of BCP Materials Pty Ltd for an Extractive Industry over Lot 1 (No. 34) Hair Place, North Boyanup (the subject site).

The subject site is 46.4 Ha, previously used for agricultural grazing purposes with two central pivots located within the extraction boundary. A single dwelling is located in the northeastern corner of the site, outside of the proposed extraction boundary surrounded by dense native vegetation atop the hill at an elevation of 40mAHD.

The purpose of this DA is to seek approval from the Development Assessment Panel (RJDAP) to allow sand extraction within the predominantly cleared and degraded portion of the site to a maximum depth of 0.5m above the maximum groundwater level. The proposed development is estimated to yield approximately 580,000m^3 of sand.

This report provides an overview of the subject site and the proposed development, as well as a detailed assessment against the relevant planning requirements and an examination of the planning merits of the proposal.

This report is accompanied by the following detailed technical reports, statements, approvals and plans:

- Appendix A – Certificate of Title
- Appendix B – Planning Assessment
- Appendix C – Development Plans
- Appendix D – Acoustic Report
- Appendix E – Traffic Management Plan and Impact Statement
- Appendix F – Weed and Dieback Management Plan
- Appendix G – Dust Management Plan
- Appendix H – Environmental Management Plan
- Appendix I – Groundwater Monitoring Report

4. Subject Site

4.1 Property Description, Ownership and Locality

The subject site is situated approximately 12km southeast of the Bunbury Town Centre and 15.5km northeast of the Capel Townsite.

The proposed staged extraction area totals 30.18Ha of the 46.4Ha property as outlined within the Works and Excavation plan.

Refer to Appendix C – Development Plans.

The subject site contains an existing residence and outbuilding atop the large hill onsite. A central pivot is located within stages 2 and 3 which is to be retained following extraction. The aerial powerline and the farm shed within the extraction boundary are to be retained, with the shed to be removed to enable extraction prior to reassembly as constructed.Lot 153 (north) is owned by the State of Western Australia as an environmental offset associated with the Bunbury Outer Ring Road (BORR). Lots 140 (east), Lot 2 (west) and Lot 141(south) contain single residential dwellings, screened from proposed operations by existing native vegetation.

An extractive industry proposal was recently approved north of the subject site at 405 Queelup Road, North Boyanup (DAP/23/02425) and south within Lot 401 (307) Ken bell Road, North Boyanup.

Refer to Figure 1 – Aerial Image of Lot 1 Hair Place, North Boyanup

The property details are provided within Table 2 below with a copy of the Certificate of Title attached at Appendix A.

Table 2. Summary of land details

Lot No.	Landowner	Area	Vol.	Folio	Plan No.
1	Adrian Stephen McCauley Lucia McCauley	46.4Ha	1769	601	D70775

Figure 1. Aerial Image of Lot 1 Hair Place, North Boyanup

4.2 Heritage & Environmental Considerations

4.2.1 Existing Site Topography

The topography of the subject site is generally level, with the northern-most proton of the property featuring a steep hill to an elevation of 40m AHD and contains the existing dwelling. The balance of the lot ranges from 24mAHD to 28mAHD at the base of the hill

Refer to the Existing Contour and Feature Plan at Appendix C.

4.2.2 Geology, Soils and Groundwater

The surface geology of the subject site is mapped zas within the Bassendean B1B phase system containing bleached grey and pale-yellow sands.

Regional groundwater flows on the subject site generally run east to west/north-west, flowing towards the coast. Long term groundwater monitoring has occurred in proximity to the subject site which shows the AAMGL (2009 to 2022) at 24.67m AHD with the maximum groundwater level (MGL) of 25.07m AHD recorded in late 2018.

Water levels identified onsite during November 2022 were recorded and extrapolated by JDA to produce the groundwater contours outlined on the development plans attached at Appendix C.

The extrapolation of MGL levels by an additional 0.35m was applied to account for the difference in peak November 2022 MGL levels and the MGL levels for the entire recording period. A copy of the JDA groundwater analysis completed for the site is included within Figure 2 below.

Additional groundwater monitoring was conducted by WML between August and October of 2025 to account for the most recent winter peak and ensure the figures calculated by JDA were still applicable. The WML monitoring has shown that, despite a wetter-than-average winter, the extrapolated MGL levels are still higher than the recorded MGL. Consequently, the groundwater contours shown on the development plans are accurate to allow adequate separation to groundwater.

The subject site has an approved groundwater license (No. 59918) for the extraction of 81,500 Kilolitres (KL) per year from the Perth – Yarragadee South aquifer. The license was granted in March 2017 and is valid until March 2027. The subject site currently uses groundwater in two central pivot irrigation systems which are to be retained following sand extraction.

4.2.3 Acid Sulphate Soils (ASS)

Department of Water and Environmental Regulation (DWER) Acid Sulphate Soil (ASS) risk mapping for the Swan Coastal Plain demonstrates that the subject site is at a moderate to low risk of containing ASS within 3m of the natural surface. Due to no extraction of sand below the groundwater level, the risk associated with disturbance of ASS is considered low for this proposal.

4.2.4 Surface Water

The site is well drained through highly permeable sandy soils allowing for all surface water to be contained onsite through onsite infiltration. No surface water is to be discharged offsite and is contained pursuant to Water Quality Protection Note No. 15 (WQPN 15).

4.2.5 Wetlands

Pursuant to the DWER Geomorphic Wetland mapping data, the subject site is not identified as containing any geomorphic wetlands.

4.2.6 Native Vegetation

An Environmental Management Plan (EMP) has been prepared by MBS Environmental. The report highlights that the portion of the lot to be used for the extractive industry is largely cleared of native vegetation. Of the proposed 30.16 Ha extraction area, only approximately 2 ha of vegetation is proposed to be cleared.

The majority of the vegetation within the extractive site is considered to be in a 'Degraded' or 'Completely Degraded' condition.

The proposed extraction area contains no environmentally sensitive TEC's and/or PEC's, threatened Flora and no wetlands or watercourses of significant environmental value.

A native vegetation clearing permit will be required from the Department of Water and Environmental Regulation (DWER). A clearing permit is to be lodged by MBS Environmental with DWER following the lodgement of this application.

4.2.7 Heritage

A search using the Department of Planning, Lands and Heritage (DPLH) mapping system indicates that there are no places with Aboriginal Cultural Heritage significance on the subject site.

Furthermore, the Heritage Council's State Heritage Register and the Shire's heritage records indicate there are no sites or places of State or Local heritage significance that will be impacted by the proposed development.

Figure 2. JDA Estimated Maximum Groundwater Level (MGL) Contours

5. Proposed Development

5.1 Development Details

5.1.1 Overview

The proposal is for sand extraction restricted to 30.16Ha of Lot 1. Extraction is to occur over 15 stages, with each stage to comprise of an area less than 2Ha open to extraction at any given time.

Sand extraction is to be completed by BCP Group, with haulage proposed to use 19m trucks on the road network identified in the haulage route shown in Figure 3. The haulage route is to connect to the Bunbury Outer Ring Road via the Jilley Road extension from Ducane Road.

Following extraction, the site is to be recontoured to enable rehabilitation to pasture.

The Development proposal is summarised in Table 3 below.

Table 3. Development Details:

Development Details:	
Subject Site Area	46.3995Ha
Area of Vegetation Clearing	2Ha (Approximately)
Material	Sand
Lot Boundary Setbacks	Minimum 20m
Minimum Separation Distance to Sensitive Land Use	210m (west) 256m (East) 216m (South)
Extractive Industry License Area (%)	30.16Ha (65% of site area)
Rehabilitation Area (% of Extraction Area)	30.16Ha (100%)
Rehabilitation Type	Pasture
Requested Approval Timeframe	10 years (8 years extraction activity, 2 years rehabilitation)
Extraction Method	Front-end loader, D9 Dozer, Excavator
Batter Slopes (Vertical: Horizontal)	1:6
No. of Stages	15
Proposed Extraction Yield	580,000 m^3 940,000 tonnes

Development Details:	
Annual Extraction Rate (Estimate)	74,000 m^3 120,000 tonnes
Depth of Extraction	+0.5m MGL
Proposed Vehicle Movements	Maximum of 24 vehicle movements per hour, dependent on market demand. This includes 10 truck movements in and out and 4 staff vehicle movements
RAV Network	N/A
Haulage Route	Refer to Figure 3
Hours of Operation	Mon–Fri: 7:00am to 6:00pm Sat: 7:00am to 12:00pm No works are to occur on Sundays or Public Holidays.

Machinery located onsite during daily extraction works may include but are not limited to the following:

- A loader for the purpose of loading sand into trucks;
- A bulldozer or tracked bobcat for the clearing of topsoil located within each extraction stage and the sequential rehabilitation of each stage by respreading topsoil;
- Trucks for transporting material off-site; and
- A 15KL watercart for dust suppression.

The duration of works onsite are anticipated to occur over an eight-year period in accordance with a time-limited extractive industry license granted under the *Shire's Extractive Industry Local Law (2016)*.

It is anticipated that all material may be extracted within eight (8) years, with rehabilitation to be completed following the completion of each stage, resulting in a 10-year approval period overall.

Rehabilitation and ongoing monitoring and maintenance of the rehabilitation area to a self-sustaining status will require management over a period of 2 years following the completion of works onsite.

The following activities are expected as part of the on-going operation of the site:

- **Removal and Stockpiling of Topsoil** – the top 100mm of topsoil from the active extraction stage is to be removed and stockpiled. Stockpiles are to be located where convenient within each extraction stage for operations with a batter no greater than 1:3 to ensure minimal erosion of the stockpile during winter periods and a height no greater than 2m for reduced wind erosion.
- **Sand excavation** – active excavation of the sand resource from the working face within the stage and loading of trucks for haulage offsite.
- **Screening** – Screening of excavated material may be required dependent upon the particle size of material and market demand for material permeability. Should screening be undertaken onsite, a mobile screen is to be located within centre of the stage and operated in accordance with the environmental acoustic report attached at Appendix D. Material is to be loaded into the screen by front-end loader prior to loading trucks for haulage.
- **Final contouring and topsoil respread** – A combination of equipment may be used to undertake spreading and earthworks including a bulldozer and/or tracked bobcat. Final batters are to be no greater than 1:6 and certified by a feature survey prior to rehabilitation to pasture.
- **Site rehabilitation** – Rehabilitation is to be completed in stages, following each stage of extraction, by a suitably qualified consultant. Annual reporting for pasture re-establishment is to be provided to the

Shire annually, in compliance with an anticipated condition of the extractive industry license.

5.1.2 Stages of Excavation

Extraction is to progress gradually in approximately 15 sequential stages clockwise, followed by progressive rehabilitation to pasture.

5.1.3 Depth of Extraction

The maximum depth of extraction is to be limited to 0.5m above the maximum ground water level monitored onsite. Detailed post extraction contours are provided within the development plans provided at Appendix C.

It is the operator's responsibility to not exceed this depth of extraction to prevent any risk of exposing groundwater within the site.

5.1.4 Site Access and Movement

Site access is set out within Figure 3.

External haulage will utilise Hair Place, Ken Bell Road and Ducane Road before accessing the Jilley Road extension to obtain regional access through the newly constructed Bunbury Outer Ring Road. The proposed haulage route is adequate to accommodate the proposed 19m as-of-right vehicles.

Internal access will utilise a limestone access road constructed during extraction operations for loading and turnaround facilities as required by operations. Removal of the internal limestone driveway will be completed prior to rehabilitation of each extraction stage and amelioration to the soil PH completed to ensure pasture growth.

Figure 3. Proposed Haulage Route

5.1.5 Hours of operation

The proposed hours of operation are 7:00am to 6:00pm, Monday to Friday inclusive, and 7:00am to 12:00pm on Saturdays. No works are to occur on Sundays or Public Holidays.

5.1.6 Site Office & Ablutions

Operations onsite may require a site office and portable ablution facilities in periods of peak haulage and activity onsite. The location of the temporary site office and ablutions are to be located near the northern boundary of Stage 1 as required.

5.1.7 Water Supply for Dust Suppression

It is anticipated that during the summer months of October to March, approximately 30KL (two full water carts) will be required for dust suppression per day. An estimated 4,500KL of water is required per year for dust suppression. This volume of water supply is to be provided by the existing 81,500KL groundwater license present onsite.

Dust suppression will include the unsealed section of road identified on the haulage route. It is the responsibility of the operator to daily maintain the road and ensure dust is managed.

5.2 Noise

An acoustic report was prepared by Herring Storer to model proposed developments noise emissions with a copy of the report included at Appendix D.

Acoustic bunding is required for various stages of extraction as specified within the acoustic report. At the commencement of each stage, the topsoil is to be stripped (100mm) and a bund constructed on the stage boundary to ensure appropriate noise amelioration is provided to comply with the noise regulations.

Refer to Appendix D – Acoustic Report

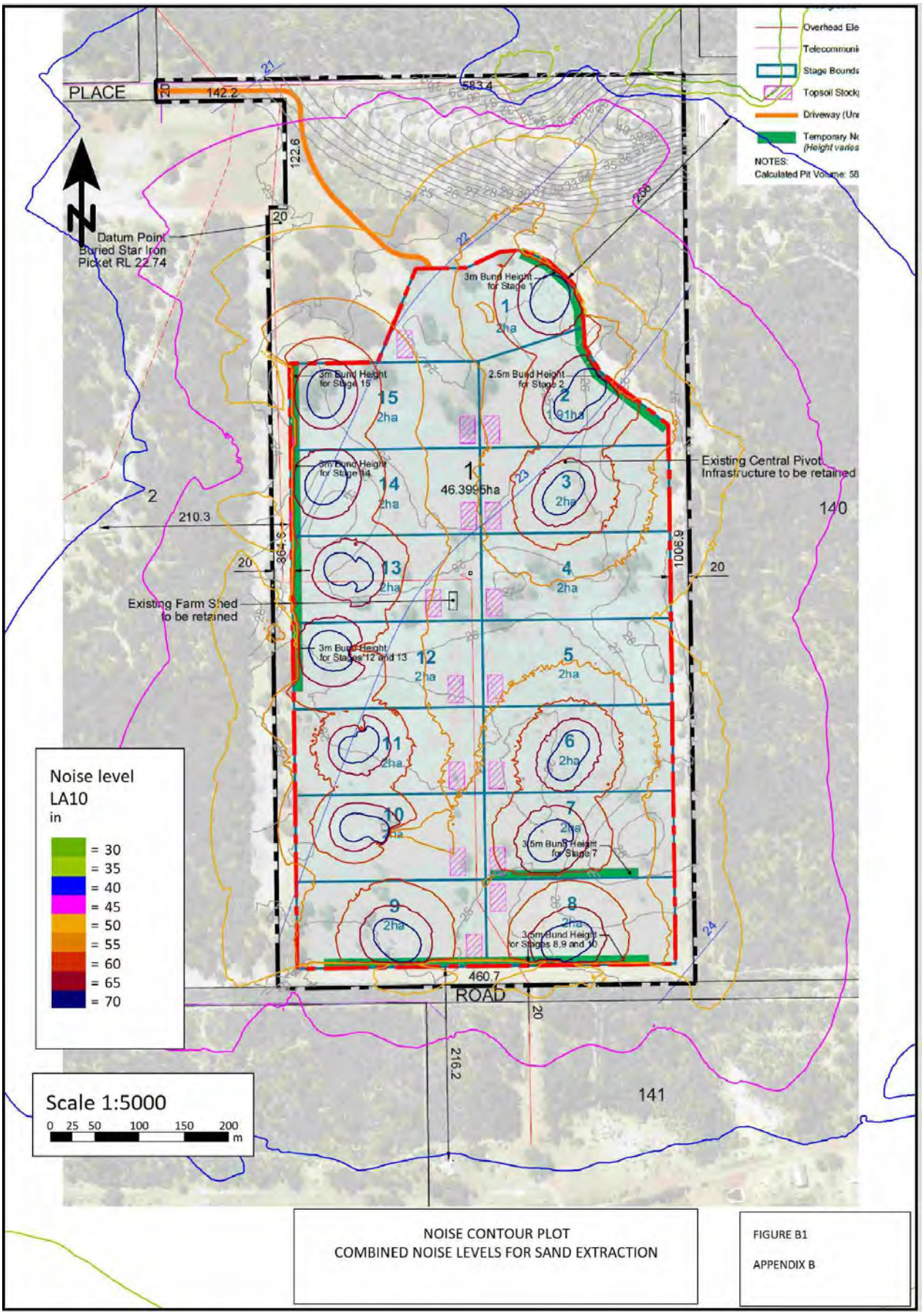

Figure 4. Modelled Acoustic Contours (Worst Case Scenario with noise bunding per stage)

5.3 Traffic and Transport

A Traffic Management Plan (TMP) has been prepared by SJ Traffic in support of the proposed haulage operations onsite. The TMP advises the reduction of vehicle speeds along Ken Bell and Ducane Road, including appropriate signage to ensure vehicle speed is controlled and resident safety and amenity is protected. Speed controls and sign locations are provided in the TMP.

The TMP ensures the condition of the haulage route is kept at an appropriate quality for the proposed haulage operations.

As a condition of development approval, the extractive industry license operator is to be responsible for the maintenance of the haulage route. The operator will be required to make a financial co-contribution on a per tonne basis of material hauled.

A Traffic Impact Statement (TIS) has been prepared by PTG Consulting to support this proposal. The TIS estimates a maximum daily movement of 50 laden trucks (in and out), as well as 8 staff vehicle movements. During the peak hour, there are expected to be a maximum of 24 vehicle trips including 10 laden truck movements and 4 staff vehicle movements. This will be dependent on market demand.

The TIS provides a swept-path anaysis of the Queelup / Ken Bell Road intersection and concludes that the haulage route is accessible with the proposed 19m as-of-right haulage vehicles.

The TIS also conducts a detailed SIDRA analysis of the Jilley Road / Lillydale Road intersection at the request of the Shire of Capel. The SIDRA analysis concludes that the intersection will operate satisfactorily for the forecasted opening year and 10-year timeframe scenarios.

Refer to Appendix E – Traffic Management Plan and Impact Statement

5.4 Weed and Dieback Management

A Weed and Dieback Management Plan has been prepared by MBS Environmental setting out the contingency measures required to prevent the introduction and spread of weeds and *Phytophthora Dieback* within the subject site.

Weed prevention measures are identified as follows:

- All vehicles, plant, and equipment entering or exiting the property will be clean and free of any weeds.
- Topsoil will be removed from the extraction area and stockpiled (gradually in stages).
- Following removal of topsoil, the movement of vehicles and machinery will be limited to the areas free of topsoil to limit the spread of any weeds.
- Exported quarry products will be free of weeds.
- Materials imported to site will be free of weeds.
- Weed control will be conducted in operational areas (e.g. trafficable areas and sand stockpiles) to ensure these areas remain weed free.
- Weed control of topsoil stockpiles will be undertaken to minimise seed set.
- During rehabilitation activities, weed control will be undertaken as necessary to minimise weed spread and to prevent weeds from compromising the end land use.
- A record of location, date, approximate size of treatment area, and control methods will be maintained.
- Weed presence and control will be monitored

Dieback management measures proposed are listed below:

- All earth-moving machinery will be cleaned of soil and vegetation prior to entering and leaving site.
- Soil will only be moved in dry conditions.

- No dieback affected material will be brought to site.
- Machinery and other vehicles will remain within the extraction area to minimise the risk of spreading disease.
- Drainage will be contained within the extraction area, there will be no surface water runoff from the extraction area.
- Personnel will be informed that the site may be infested with dieback and that dieback can spread on vehicles, machinery, equipment, footwear, and tools, and instructed on clean down requirements.
- Topsoil will be stockpiled and respread as close to its source area as possible.
- Potential customers will be advised that the material exported from site cannot be considered dieback free.
- Entry to and exit from the site will be limited to designated locations.
- Trucks exporting sand from the site will be required to have their load properly covered.
- Ensure that, as far as can be known, any soil, mulch, fill, or other material brought on site is sourced responsibly and free of dieback.
- Topsoil will be removed and stockpiled from the extraction area (gradually in stages), and the subsequent movement of vehicles and machinery will be limited to the areas free of topsoil.
- Vegetation clearing and topsoil removal and stockpiling will only be undertaken in dry conditions.
- Existing and new personnel will be informed of dieback prevention measures and be required to meet them.
- Unauthorised access to the extraction site will be managed through fencing and lockable gates.
- Signage regarding unauthorised entry and 'clean on entry' requirements will be placed at the gates.
- Trafficable areas and material stockpiles areas will be maintained well drained.
- No soil from the extraction area will be placed outside of the approved operational boundary.

Refer to Appendix F – Weed and Dieback Management Plan

5.5 Dust Management

Dust generated onsite is to be managed in accordance with the Dust Management Plan (DMP) prepared by MBS Environmental attached at Appendix G.

As outlined within the DMP, dust generation will be prevented through the following methods:

- Vegetation clearing and topsoil removal will only be undertaken on days of conducive wind strength and conditions to ensure windblown dust is minimised.
- Vegetation clearing and ground disturbance will be gradual in nature and proceed in stages.
- Revegetation to pasture will also be gradual in nature and proceed in stages, closely following the completion of sand extraction.
- Topsoil stockpiles will be no greater than 2 m in height and other stockpiles will not exceed 4m in height.
- A vehicle speed limit of 20 km/h will be implemented across the site.
- A water cart with a capacity greater than 10,000 L will be available when required and will undertake preventative watering of access tracks, working areas, and stockpiles during dry periods.
- Trucks leaving the site will be required to have their load covered and tailgates and draw-bars clear of dust producing material prior to entering Hair Place. Appropriate signage will be erected at the site exit advising truck drivers to cover loads and clean their vehicle as required prior to entering public roads.

Dust generation will be monitored on a ongoing basis. If visible dust is seen to be crossing the site boundaries, works will cease until the dust generation can be managed. The DMP includes a Dust Complaint Form which will be forwarded to the Shire and can be used by the public to make the operator aware of a complaint to be resolved as per the DMP.

Refer to Appendix G – Dust Management Plan

5.6 Rehabilitation

Following the extraction of sand from each stage, each stage is to be progressively rehabilitated to pasture as detailed within the Environmental Management Plan attached at Appendix H.

The rehabilitation methodology set out within section 5 of the EMP will ensure future rehabilitation onsite allows for the continued use of the site for rural uses.

Refer to Appendix H – Rehabilitation Implementation Plan

5.7 Stormwater Management

Stormwater management onsite is managed through the current highly permeable soils (sand) providing the opportunity for onsite infiltration. There is currently no drainage swales or depressions onsite to transfer surface water.

The following measures are to be implemented in the occurrence of a major rainfall event, as per the EMP:

- Clean stormwater from outside the project area (if any) will be diverted away from operational areas.
- Stormwater from the extraction area (if any) will be contained within the extraction area. The proposed final landform facilitates the containment of stormwater without additional management measures (as the extraction area will become a depression in the landscape).
- As stormwater will be contained within the extraction area, any turbidity will be contained as well.
- Rehabilitation of the extraction area to pasture will minimise future stormwater runoff and erosion.

A stormwater management site plan has been prepared to illustrate the onsite surface water management measures. Stormwater will be managed onsite within each stage through temporary retention pits with surface water flows directed towards them. The temporary retention pits are designed to hold a runoff volume equivalent to a 2-hour 10% AEP rainfall event in accordance with DWER WPQN 15.

Refer to Appendix C – Development Plans

5.8 Onsite Vehicle Maintenance

All machinery onsite is to be serviced by an authorised service vehicle which is to arrive onsite when required. Each service and maintenance vehicle contain a hydrocarbon spill kit to prevent any potential contamination of the site.

All major servicing is to occur offsite with machinery transported offsite.

No hydrocarbons are to be stored onsite at any time within a fuel tank, with the refuelling of machines to occur from an authorised service vehicle.

6. Orderly and Proper Planning

In addition to the assessment and justification provided in the planning assessment at Appendix B, the principles of orderly and proper planning require that new development is consistent with the planning vision and strategic direction for the locality.

The key matters relating to orderly and proper planning are as follows:

- The application seeks approval for an Extractive Industry land use, a discretionary land use within the Rural Zone of LPS 8 and time limited in its operation.
- SCA 6 of LPS requires the extraction of sand from strategic basic raw material sites prior to the further development of the land as a matter of orderly and proper planning for which this proposal enables future rural use and development onsite;
- The development proposal meets the objectives of the Greater Bunbury Region Scheme Rural Zone and located within a Strategic Basic Raw Material Policy area for sand extraction;
- The proposed development seeks to extract sand to a depth no greater than +0.5m MGL, ensuring an appropriate buffer is maintained to groundwater to the satisfaction of DWER;
- The proposal will enable the extraction of sand, supplying a critical basic raw material to the Greater Bunbury Region, contributing to local employment and economic development;
- The proposal will not impact on the amenity of surrounding rural land uses in the vicinity of the site, as land north of the subject site is an environmental offset for the BORR and borders an active extraction operation, Lots east and west are appropriately screened from operations and land south is actively seeking approval for an Extractive Industry;
- The proposed haulage route safely controls speed in proximity of sensitive land uses such as rural residential properties and efficiently achieves regional connectivity through the newly constructed BORR;
- The proposed development is capable of managing Dust and Noise emissions within the site without any offsite amenity impacts on the locality;
- Following Extraction, each stage is to be progressively rehabilitated to pasture in a manner set out within the Environmental Management Plan and monitored annually to the satisfaction of the Shire of Capel.

Given the above, the proposed development is considered to be consistent with the principles of orderly and proper planning and therefore should be supported by the DAP on its planning merit.

7. Conclusion

This report has been prepared by **Element Advisory**, on behalf of BCP Materials Pty Ltd for an Extractive Industry at Lot 1 Hair Place, North (the "subject site"). The development proposal seeks approval to extract sand from 15 stages, within a period of 10 years.

This report sets out the development approval framework, project area description, proposed development and planning framework applicable to the proposal. The planning assessment demonstrates the proposed development will achieve the strategic intent for the area and is consistent with the requirements and standards in the applicable statutory planning framework.

Whilst some variations are proposed to the relevant development standards under the local planning framework, they have been appropriately justified. This proposal provides a sequential, yet sustainable land use opportunity to provide supply of sand into the southwest, particularly Dalyellup and urban development land in Usher via the Lilydale Road access from the BORR and surrounds.The proposal is therefore consistent with the principles of orderly and proper planning and can be appropriately managed as outlined within this report.

It is respectfully requested that the Shire support and recommend approval of the proposed development to the DAP, subject to appropriate conditions reflective of current operations.

Appendix A – Certificate of Title

WESTERN AUSTRALIA

TITLE NUMBER	
Volume	Folio
1769	**601**

RECORD OF CERTIFICATE OF TITLE

UNDER THE TRANSFER OF LAND ACT 1893

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

BGRoberts

REGISTRAR OF TITLES

REGISTRAR OF TITLES WESTERN AUSTRALIA

LAND DESCRIPTION:

LOT 1 ON DIAGRAM 70775

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

ADRIAN STEPHEN MCCAULEY
LUCIA MCCAULEY
BOTH OF 34 HAIR PLACE NORTH BOYANUP WA 6237
AS JOINT TENANTS

(T N459833) REGISTERED 17/10/2016

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

----------END OF CERTIFICATE OF TITLE----------

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND:	1769-601 (1/D70775)
PREVIOUS TITLE:	1515-922, 1515-923
PROPERTY STREET ADDRESS:	34 HAIR PL, NORTH BOYANUP.
LOCAL GOVERNMENT AUTHORITY:	SHIRE OF CAPEL

LANDGATE COPY OF ORIGINAL NOT TO SCALE 18/07/2025 12:19 PM Request number: 68498032

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Appendix B – Planning Assessment

Greater Bunbury Region Scheme

The Greater Bunbury Region Scheme zones the subject site 'Rural' as outlined within Figure 5.

The purpose of the 'Rural' zone is as follows:

> *Rural – to provide for the sustainable use of land for agriculture, assist in the conservation and wise use of natural resources including water, flora, fauna and minerals, provide a distinctive rural landscape setting for the urban areas and accommodate carefully planned rural living developments.*

The aims of the GBRS relevant to this proposal are as follows:

> *The aims of the Scheme are to —*
> *(A) Promote the sustainable development of land taking into account relevant environmental, social and economic factors;*
>
> *(H) Protect strategic minerals and basic raw materials of State and regional importance and provide for the efficient and timely extraction of minerals and raw materials and subsequent rehabilitation of affected land.*

The proposed development seeks approval for regionally significant use of the land to harness natural resources for urban development. It promotes the sustainable development of the land through the progressive extraction of sand, a critical basic raw material, and the subsequent rehabilitation to sustainable pasture. The proposal is therefore in accordance with the purpose of the Rural zone and aims of the GBRS.

GBRS Strategic Minerals and Basic Raw Materials Resource Policy (2018)

The subject site is entirely located within a Sand Strategic Mineral Resource identified within the GBRS Strategic Minerals and Basic Raw Materials Resource Policy (GBRS Resources Policy) as outlined within Figure 6.

The GBRS Resources Policy is in effect to ensure strategic resource sources are identified and extracted prior to any further development of the site. Decision makers are to give regard to the GBRS Resources Policy when contemplating development applications on affected land. The proposed development seeks to facilitate the objectives of the GBRS Resources Policy as detailed below.

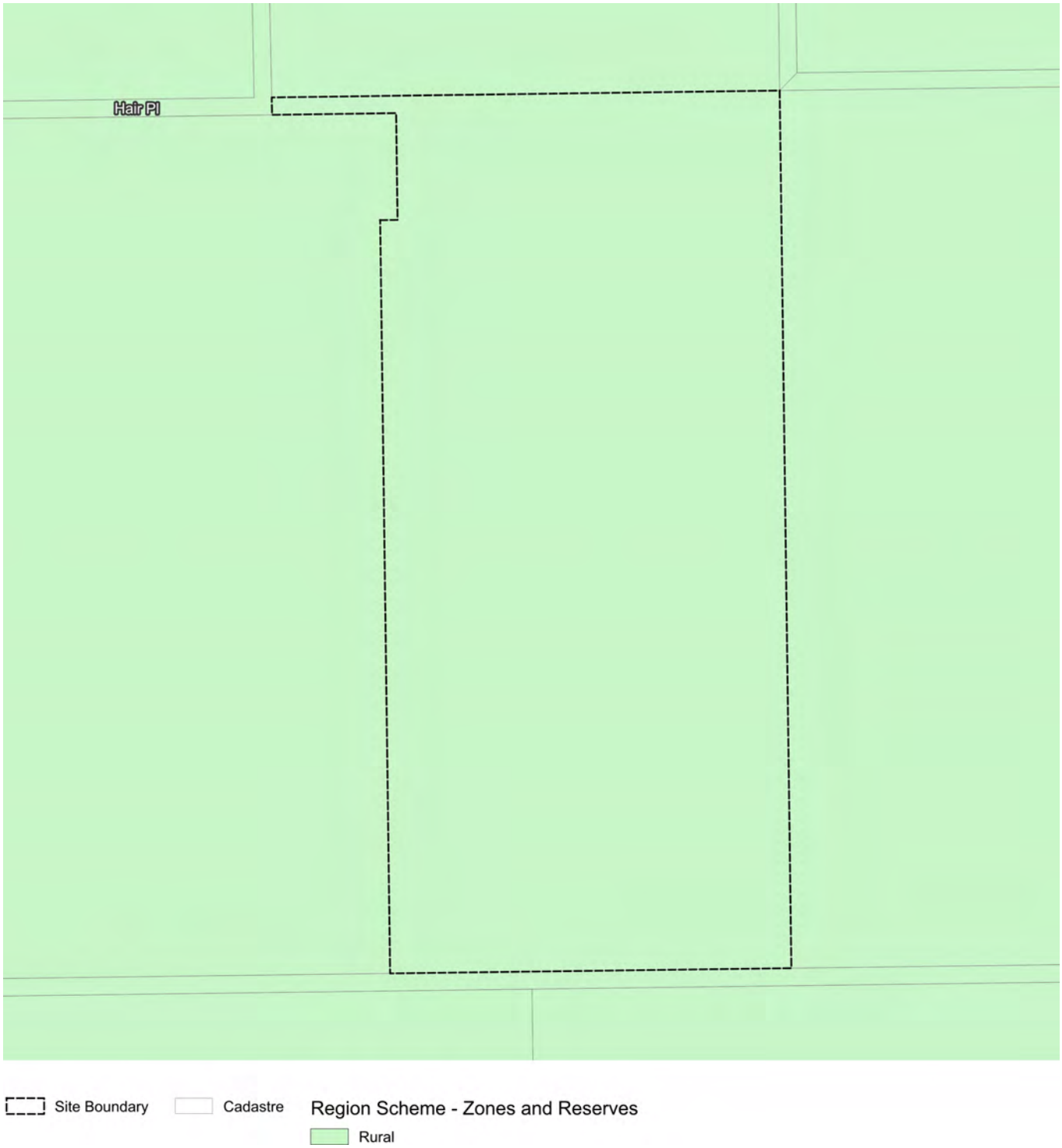


Figure 5. Greater Bunbury Region Scheme (GBRS)

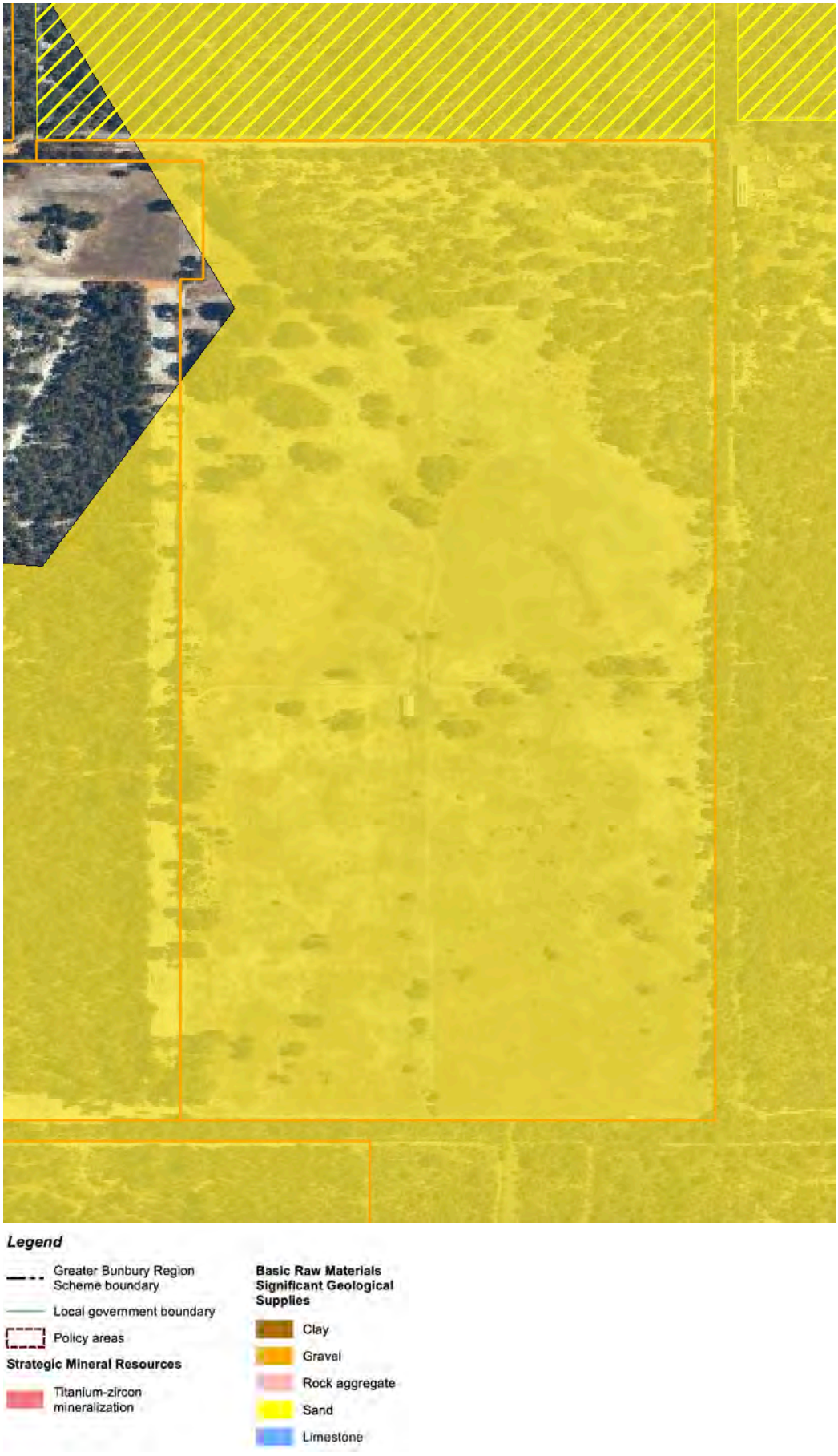


Figure 6. Strategic Minerals and Basic Raw Materials Resource Policy

The policy objectives and applicable response are provided within Table 4.

Table 4. GBRS Resources Policy Assessment

GBRS SMBRM Policy Objective	Proposed Development
4.1. To identify land within the GBRS area that contains mineral resources and basic raw materials or state or regional significance	The proposal is identified as being located within a significant sand deposit. Basic Raw Material extraction is considered appropriate for the location.
4.2. To prevent strategic resources of State or reginal significance being sterilised from incompatible development and land uses	The proposal seeks to extract Basic Raw Materials following and subsequently rehabilitate the land for future rural uses. The land will not be sterilised.
4.3. To encourage the mining of strategic resources in accordance with acceptable environmental standards	The proposal is facilitates an appropriate extraction methodology, as detailed in noise, dust, traffic and environmental management plans.
4.4. To promote the rehabilitation and restoration of mining and extraction sites after works have been completed, in a manner consistent with the long-term use of the land.	As detailed above, the proposed development responsibly rehabilitates the land to pasture fit for rural use.

The proposal therefore meets the objectives of the GBRS Resources Policy.

Planning and Development (Local Planning Schemes) Regulations 2015

Clause 67(2) of Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015* (the Deemed Provisions), specifies matters which are to be given due regard when determining applications for approval.

An assessment of the proposal against the relevant matters outlined in Clause 67(2) of the Deemed Provisions has been undertaken. A summary of the assessment is provided in Table 5

Table 5. Clause 67(2) of the Planning and Development (Local Planning Schemes) Regulations 2015 Assessment

Provision	Applicant Response	
(a) *the aims and provisions of this Scheme and any other local planning scheme operating within the Scheme area*	Refer to the planning justification provided under the Local Planning Scheme No. 8.	✓
(b) *the requirements of orderly and proper planning including any proposed local planning scheme or amendment to this Scheme that has been advertised under the Planning and Development (Local Planning Schemes) Regulations 2015 or any other proposed planning instrument that the local government is seriously considering adopting or approving*	LPS 8 was adopted by the Shire in July 2023.	✓
(c) *any approved State planning policy*	Refer to the assessment listed under State Planning Policy 2.4, and 3.7.	✓

Provision	Applicant Response	
(d) any environmental protection policy approved under the Environmental Protection Act 1986 section 31(d)	Refer to the assessment outlined under EPA Separation distances between Industrial and Sensitive land uses.	✓
(e) any policy of the Commission	Refer to the assessment outlined under GBRS Strategic Minerals and Basic Raw Materials Resource Policy (2018)	✓
(f) any policy of the State	N/A	
(fa) any local planning strategy for this Scheme endorsed by the Commission	Refer to summary of assessment under the Shire of Capel Local Planning Strategy.	✓
(g) any local planning policy for the Scheme area	Refer to summary of the local planning policy 6.2 – Extractive Industries.	✓
(h) any structure plan or local development plan that relates to the development	N/A	✓
(i) any report of the review of the local planning scheme that has been published under the Planning and Development (Local Planning Schemes) Regulations 2015	N/A	✓
(j) in the case of land reserved under this Scheme, the objectives of the reserve and the additional and permitted uses identified in this Scheme for the reserve	N/A	✓
(k) the built heritage conservation of any place that is of cultural significance	N/A	✓
(l) the effect of the proposal on the cultural heritage significance of the area in which the development is located	The subject site is not listed as a site of heritage significance.	✓
(m) the compatibility of the development with its setting, including– *(i) the compatibility of the development with the desired future character of its setting; and* *(ii) the relationship of the development to development on adjoining land or on other land in the locality, but not limited to, the likely effect of the height, bulk, scale orientation and appearance of the development.*	The proposed development is separated by a minimum of 210m from the nearest sensitive land use (dwelling), to the west. The surrounding properties are largely densely-vegetated rural properties which will not be impacted by the proposed extraction. The proposed development is consistent with nearby development as extraction has been approved at Lot 265 Ducane Road to the north.	✓

Provision	Applicant Response	
(n) the amenity of the locality including the following – *(i) environmental impacts of the development* *(ii) the character of the locality* *(iii) social impacts of the development*	The environmental considerations of the proposal are detailed and addressed in the accompanying environmental reports. Refer to the following: *Appendix D – Acoustic Report* *Appendix E – Traffic Management Plan and Impact Statement* *Appendix F – Weed and Dieback Management Plan* *Appendix G – Dust Management Plan* *Appendix H – Environmental Management Plan* *Appendix I – Groundwater Monitoring Report*	✓
(o) the likely effect of the development on the natural environment or water resources and any means that are proposed to protect or mitigate impacts on the natural environment or the water resource	No impacts on water resources are expected. There are no mapped wetlands onsite and groundwater will not be intercepted by the proposed extraction pit.	✓
(p) whether adequate provision has been made for the landscaping of the land to which the application relates and whether any trees or other vegetation on the land should be preserved	The entire extraction area is to be rehabilitated to pasture	✓
(q) the suitability of the land for the development taking into account the possible risk of flooding, tidal inundation, subsidence, landslip, bush fire, soil erosion, land degradation or any other risk	The site is suitable for sand extraction and is identified as a strategic mineral resource. The listed environmental considerations have no impact on the potential of the development.	✓
(r) the suitability of the land for the development taking into account the possible risk to human health or safety	Any potential amenity impacts are appropriately addressed in attached management plans. No risk on human health or safety is expected and will be managed accordingly.	✓
(s) the adequacy of – *(i) the proposed means of access and egress from the site; and* *(ii) arrangements for the loading, unloading, manoeuvring and parking of vehicles*	Site access and haulage is in accordance with the Haulage Plan.	✓

Provision	Applicant Response	
(t) *the amount of traffic likely to be generated by the development, particularly in relation to the capacity of the road system in the locality and the probable effect on traffic flow and safety*	There will be a maximum of 15 trucks entering and exiting the subject site at the peak hour. Traffic safety is to be managed in accordance with the Traffic Management Plan.	✓
(u) *the availability and adequacy for the development of the following –* *(i) public transport services* *(ii) public utility services* *(iii) storage, management and collection of waste* *(iv)access for pedestrians and cyclists (including end of trip storage, toilet and shower facilities)* *(v) access by older people and people with disability*	N/A	
(v) *the potential loss of any community service or benefit resulting from the development other than potential loss that may result from economic competition between new and existing businesses*	N/A	
(w) *the history of the site where the development is to be located*	The subject site has a historic rural use and will continue following completion of extraction.	✓
(x) *the impact of the development on the community as a whole notwithstanding the impact of the development on particular individuals*	The development will positively impact the community, by providing sand for future construction purposes within the Shire of Capel.	✓
(y) *any submissions received on the application*	Submissions received on the application are to be considered and addressed through the assessment process.	✓
(za) *the comments or submissions received from any authority consulted under clause 66*	Submissions received on the application are to be considered and addressed through the assessment process.	✓
(zb) *any other planning consideration the local government considers appropriate*		

Shire of Capel Local Planning Scheme No. 8

The subject site is zoned "Rural" under the Shire of Capel's Local Planning Scheme No. 8 (LPS 8). as outlined within Figure 7 below.

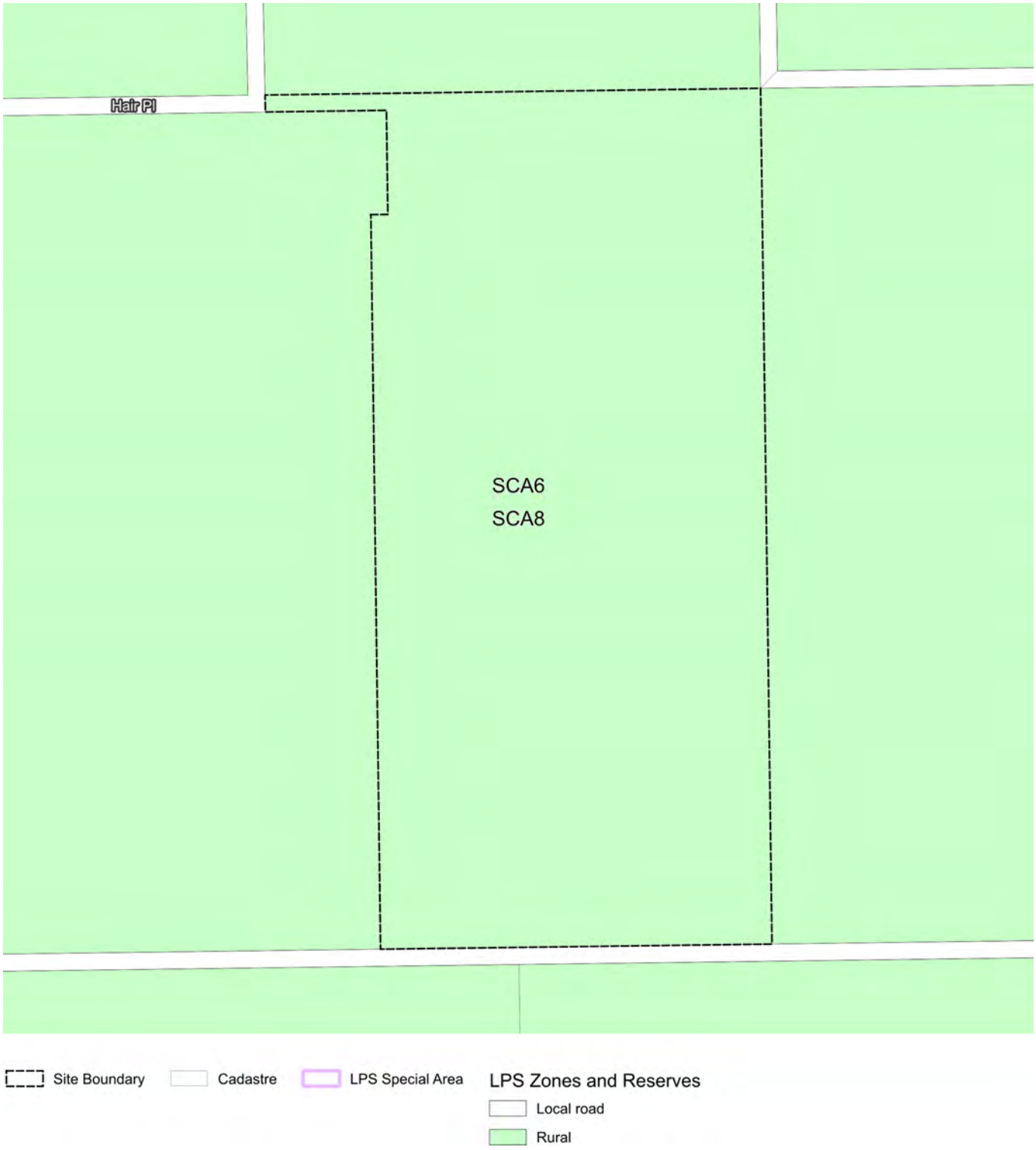


Figure 7. Local Planning Scheme No. 8 Zoning

The objectives of the Rural zone are outlined as follows:

1. *To provide for the maintenance or enhancement of specific rural character;*
2. *To protect extensive agricultural activities such as cropping and grazing and intensive uses such as horticulture as primary uses with other rural pursuits and rural industries as secondary uses in circumstances where they demonstrate compatibility with the primary use;*
3. *To maintain and enhance the environmental qualities of the landscape, vegetation, soils and water bodies, in order to protect sensitive areas especially the natural valley and watercourse systems from damage;.*
4. *To provide for the operation and development of existing, future and potential rural land uses by limiting the introduction of sensitive land uses in the Rural Zone;*
5. *To provide for a range of non-rural land uses where they have demonstrated benefit and are compatible with surrounding Rural uses.*

The proposed extractive industry is considered to meet objective (5) of the Rural Zone, having a demonstrated benefit to the economic development within the Shire and is appropriately managed to be compatible with surrounding Rural uses.

An 'Industry Extractive' land use is defined by LPS 8 as:

> *means premises, other than premises used for mining operations, that are used for the extraction of basic raw materials including by means of ripping, blasting or dredging and may include facilities for any of the following purposes –*
>
> *(a) the processing of raw materials including crushing, screening, washing, blending or grading*
>
> *(b) activities associated with the extraction of basic raw materials including wastewater treatment, storage, rehabilitation, loading, transportation, maintenance and administration.*

Within the Rural zone, an Industry Extractive land use is a discretionary land use "A" which may be considered, subject to the application being made available for public comment.

The subject site is located entirely within SCA 6– Strategic Minerals and Basic Raw Materials.

The purpose of SCA 6 is as follows:

> *'To identify areas where basic raw materials and strategic mineral resources need to be protected from incompatible land uses in line with the GBRS Strategic Minerals and Basic Raw Materials Resource Policy 2018.'*

The proposed Extractive Industry satisfies the purpose of SCA 6 by identifying a strategic source of basic raw materials and engaging in appropriate extraction prior to rehabilitation to native vegetation. This allows for the extraction of a significant Basic Raw Material Resource while also enabling improved rehabilitation to native vegetation.

The following table assess the proposal against the objectives of SCA6 under the LPS8:

Table 6. LPS8 Special Control Area 6: Strategic Minerals and Basic Raw Materials Assessment

LPS8 SCA6 Objective	Comment
(a) *(a) To identify land within the Scheme area which contains mineral resources and basic raw materials of State or regional significance*	The extraction area includes a regionally significant deposit of sand.
(b) *To prevent mineral resources and basic raw materials of State or regional significance being sterilised by incompatible development and land uses.*	The proposal seeks to extract BRM and not sterilise the resource.
(c) *To encourage the mining of mineral resources and extraction of basic raw materials in accordance with acceptable environmental standards.*	Extraction of BRM is to be completed to an acceptable environmental standard as set out within this report. This report is also accompanied by extensive environmental management plans that ensure appropriate extraction to the satisfaction of the Shire.
(d) *To promote the rehabilitation and restoration of mining and extraction sites, after works have been completed, in a way that is consistent with the long-term use of the land.*	The proposed extraction area is to be entirely rehabilitated to pasture in accordance with the Rehabilitation Plan.

The subject site is further located within Special Control Area 8 – Regional Ecological Linkages.

The purpose of SCA 8 is as follows:

> *To identify significant ecosystems on the Scheme Map as a Special Control Area and to provide measures to ensure that land use and development within its boundaries are regulated and managed to protect significant ecological linkages, foreshore environments, biodiversity and environmental quality.*

The proposed development is supported by detailed environmental management plans that detail Dust, Traffic, Groundwater, Acoustic, Rehabilitation and Vegetation management. The provisions of these reports ensure that the ecological value of the subject site is maintained throughout operation and rehabilitated after completion.

Local Planning Policy 6.2 – Extractive Industries

Local Planning Policy 6.2 – Extractive Industries (LPP6.2) has been prepared by the Shire to ensure appropriate location of Extractive Industry uses and mitigation of adverse amenity and environmental impacts. LPP 6.2 includes Acceptable Development assessment criteria that must be achieved for proposed extractive industry developments or must demonstrate compliance with the listed Performance Criteria if variations are proposed.

An assessment against the relevant Acceptable Development and Performance Criteria is provided in the table below:

Table 7. LPS 6.2 Assessment

LPP6.2 Acceptable Development Provision	Applicant Comments
Element: Amenity	
AD1.1.1 Hours of operation are limited to 7am to 7pm Monday to Friday and 7am to 1pm on Saturday. No operation on recognised public holiday days.	Approved hours of operation are proposed in accordance with AD 1.1.2.
AD 1.1.2 Development is located, designed and rehabilitated compatible with long-term planning and environmental protection.	*Proposed extraction area is to be rehabilitated to pasture as defined in the environmental management plan. The accompanying dust management plans and groundwater report ensure water resources are not adversely impacted.*
Element: Environmental	
AD1.2.1 Development does not prejudicially affect native flora and fauna; groundwater quality, quantity and use; surface drainage and surface water quality including discharge of sediment and sites of cultural and/or historic significance on or near the land.	The subject site houses only limited native vegetation. Of the proposed 30.16 Ha extraction area, approximately 2ha of vegetation is proposed to be cleared. Onsite remnant vegetation is considered to be largely degraded or completely degraded. A native vegetation clearing permit will be obtained through DWER prior to commencement of operations. Rehabilitation of native vegetation is at the discretion of DWER through the clearing permit process.
AD1.2.2 Dieback is managed in accordance with Best Practice Guidelines – Management of Phytophthora Dieback in Extractive Industries (2005 – Dieback Working Group) as detailed within an agreed Dieback Management Plan.	A Weed and Dieback Management Plan attached at Appendix F and provides measures that will be implemented to prevent the introduction and spread of weeds and Phytophthora Dieback within the extraction and adjoining covenanted areas.

LPP6.2 Acceptable Development Provision	Applicant Comments
PC1.2.3 Development is located and managed to achieve a high level of surface and groundwater resource protection to provide soil depth for rehabilitation, future land use and a buffer against groundwater contamination and exposing groundwater.	The proposed EIL is seeking extraction to a maximum depth of 0.5m above the MGL at the subject site. This is demonstrated to be ample groundwater separation in reference to long-term groundwater monitoring completed by JDA. The 0.5m separation allows for the protection of groundwater resources from contamination as well as providing a suitable soil depth for healthy rehabilitation in the future.
AD1.2.4 Batter slopes with gradients up to 1:6 when rehabilitated to pasture for agricultural land uses and/or native revegetation.	The proposed development seeks batter slopes of 1:6.
AD1.2.5 Sites to be rehabilitated in accordance with an agreed Environmental Management Plan and Rehabilitation Implementation Plan prepared and implemented in accordance with application and bonding requirements as specified in Appendix 1 of this Policy. For hard rock extraction sites, an end-of-life pit plan is to be provided and agreed upon between the Shire and applicant at least 5 years prior to the expiration of the approval's validity.	The proposal is accompanied by detailed Environmental Management Plan, prepared by MBS Environmental, which details rehabilitation to pasture.
Element: Buffers	
PC1.3 Development to demonstrate satisfactory mitigation and management measures in accordance with SPP 4.1 Industrial Interface and Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses (EPA – 2005).	The proposed development is appropriately managed in accordance with Guidance Note 3 – Separation Distances Between Industrial and Sensitive Land Uses. The western edge of Stage 14 of the extraction area is located 210.3m from the nearest sensitive land use in lieu of the recommended buffer distance between 300-500m. Potential impacts such as noise and dust are appropriately managed in accordance with the environmental management plan. Acoustic bunding is incorporated to reduce visual and noise emissions.
Element: Visual Impact	
AD1.4.1 Visual screening to be provided through retention of existing vegetation and /or provision of an appropriate landscaping screen/bund to the satisfaction of the Shire. No walls or solid fences will be considered.	The proposed extraction area is set back a minimum of 20m from all boundaries. Bunding is incorporated at extraction boundaries to reduce visual impact. Significant vegetation is present on all surrounding frontages, preventing direct views from neighbouring lots and Hair Place.

LPP6.2 Acceptable Development Provision	Applicant Comments
Element: Transport	
AD1.5.1 Haulage is to be wholly contained to the 'Tandem Drive 4' Network route, as identified by Main Roads Western Australia.	The proposed development seeks to use 19m as-of-right vehicles for haulage which are not restricted on the identified haulage route.
AD1.5.2 Haulage traffic is to be proposed at times of the day which will minimise conflict with school pick up and drop off hours (7:30am-9am and 2:30pm-4pm Mondays to Fridays)	The proposed haulage route does not conflict with school bus routes.
AD1.5.3 Where available, haulage traffic is to utilise road networks which have a sealed surface, and appropriate designed to accommodate the proposed vehicle types.	The proposed haulage vehicles can be accommodated by the current condition of the roads on the haulage route. Minimal travel is required by haulage vehicles before accessing sealed roads.
PC1.5.2 The application is accompanied by a Traffic Management Plan to demonstrate that haulage periods that conflict with school pick and drop off times are acceptable in their impact to the safety of the road network.	The proposed development is to be accompanied by a Traffic Management Plan prepared to the Shire's satisfaction which details speed controls and road condition management responsibilities to identify and mitigate potential traffic related risks.

State Planning Policy 2.4 – Basic Raw Materials

State Planning Policy 2.4 seeks to enable the responsible extraction of Basic Raw Materials (BRM) while ensuring the protection of people and the environment. The application of this Policy provides the foundation for land use planning to address the sustainable management of BRM in Western Australia. Applicable to this proposal, the following objectives of the Policy are as follows:

(a) ensure BRM and its regional importance is considered at the earliest stages of the planning process;

(b) protect BRM in SGS areas and ES by avoiding encroachment from incompatible land uses;

(c) ensure BRM resources are used efficiently in land use planning and development;

(d) identify BRM extraction opportunities through sequential land use without compromising the final intended land use; and

(e) ensure the extraction of BRM avoids, minimises or mitigates any adverse impacts on the community, water resources and biodiversity values.

Considering the above Policy objectives, the proposed Extractive Industry development seeks to meet the objectives of the Policy as follows:

- The proposed extractive industry seeks to extract a basic raw material in an appropriate manner which considers planning and environmental constraints onsite;
- The proposed development ensures the regionally significant resource is extracted from the SGS area prior to further development;
- The proposed rehabilitation to pasture and recontouring of the land allows for the land to be kept for rural use in perpetuity and;
- Potential amenity impacts on surrounding properties are mitigated through detailed management plans.

Demonstration of consistency with the assessment criteria detailed within SPP 2.4 is outlined within the following table:

Table 8. SPP 2.4 Guidelines Assessment

SPP 2.4 Guidelines Part 4 Provision	Applicant Response
(a) the avoidance or mitigation of conflicts and detrimental effects on existing and future sensitive land uses and agricultural land in the surrounding areas (that is, noise, dust, vibration, blasting and vehicular traffic);	As detailed in the environmental management plans, the proposed development is adequately separated from sensitive land uses and potential amenity impacts are mitigated.
(b) having an effective consultation process with appropriate stakeholder engagement, including advertising as required;	The development application is to be made available for public comment as part of the development application process with due regard given to any submissions made.
(c) prioritisation of proposals within SGS areas aligned with DMIRS geoVIEW.WA mapping in Perth and Peel;	Not applicable to this application.
(d) if the resources is identified as a SGS area and/ or local basic raw material demand;	The site is identified as an SGS for a sand resource deposit.
(e) the quantity and quality of resource and scale and duration of extraction;	The proposal seeks approval for an additional net 580,000m3 of sand.
(f) management of finished ground levels for BRM extraction and site rehabilitation to: *i) Maintain appropriate horizontal separation between extraction, water supply infrastructure and any other engineering requirements;* *ii) Avoid the exposure of groundwater and maintain the required vertical separation distances to groundwater for sequential land use;* *iii) Protect ground water and surface water quality.*	The proposed extractive industry will be consistent with SPP 2.4 Guidelines Part 4(f). The proposed extractive industry is adequately separated from water supply and engineering infrastructure. A separation distance to groundwater of +0.5m from the MGL is proposed and is considered sufficient to protect against potential interception of groundwater.
(g) the site's potential for sequential land use and the ability to rehabilitate the land in a manner compatible with its long-term use identified by the Local Planning Scheme;	The subject site is to be rehabilitated to pasture for future rural uses.
(h) the ability to stage the extraction operations to avoid conflicts with any adjacent land uses;	Staging is proposed in a manner which does not impact surrounding sensitive land uses.
(i) the effect of the proposed extractive industry on any adjacent agricultural land;	The proposed extractive industry does not impact any agricultural land uses within proximity of the site.

SPP 2.4 Guidelines Part 4 Provision	Applicant Response
(j) the availability and suitability of road access;	The proposed haulage is to utilise 19m 'as-of-right' vehicles and will efficiently access the new Bunbury Outer Ring Road.
(k) the effect of the proposed extractive industry on any native flora and fauna and general landscape values;	No impact on flora and fauna is expected, the site is largely cleared with only degraded native vegetation remaining within the extraction area.
(l) how all water resources will be protected during BRM extraction including a separation distance to the defined groundwater level plus other management measures to protect water resources during BRM extraction;	No water resources are anticipated to be negatively impacted by this proposal. Adequate separation to groundwater and wetlands is proposed.
m) potential impacts on fragmentation and connectivity of remnant vegetation;	No fragmentation is anticipated as part of this application. Rehabilitation of the extraction area will enhance connectivity.
n) any requirements for an environmental offset;	Not required.
o) sites of cultural and historic significance on and near the land, having regard to how they are likely to be integrated with subsequent land uses; and	Not applicable to this application.
p) location and stability of excavations, stockpiles and overburden dumps.	No stockpiling is to occur onsite.

The proposal is therefore designed in accordance with the provisions of SPP 2.3 – Basic Raw Materials.

State Planning Policy 3.7 – Planning in Bushfire Prone Areas

The subject site is designated to be bushfire prone by DFES with the provisions of SPP 3.7 and associated guidelines for November 2024 Planning for Bushfire Guidelines.

Section 1.2.1 – Exemptions stipulates development can be exempt from SPP3.7 where there is no increase in the bushfire risk and where there is no habitable building to assess.An Extractive Industry is listed as a land use which may be considered exempt from compliance with the guidelines where no habitable buildings are proposed and the proposal does no propose an intensification of land use. Since the proposal does not contain any habitable buildings, and employees onsite are to be onsite for periods of haulage and loading only as previously approved, the application is considered exempt from requiring a bushfire assessment at this stage.

Additionally, any potential bushfire risk is further mitigated through the lack of vegetation within the extraction area.

Shire of Capel Extractive Industries Local Law (2016)

The Shire of Capel Extractive Industry Local Law 2016 sets out the licensing requirements for an Extractive Industry within the Shire.

This proposal seeks to meet the policy requirements as stipulated within the Local Law to allow for an appropriately staged and located development to operate in support of regionally significant infrastructure projects within the southwest.

The application seeks to comply with Clause 6.1 – Limits on Excavation Near Boundary as follows:

6.1 Limits on excavation

(a) 20 metres of the boundary of any land on which the excavation site is located;

(b) 20 metres of any land affected by a registered grant of easement;

(c) 40 metres of any thoroughfare;

(d) 50 metres of any bore, watercourse, wetland, swamp, or other water reserve; or

(e) 2 metres of the estimated maximum groundwater level as determined from time to time by the Department of Water or otherwise as adopted by the local government.

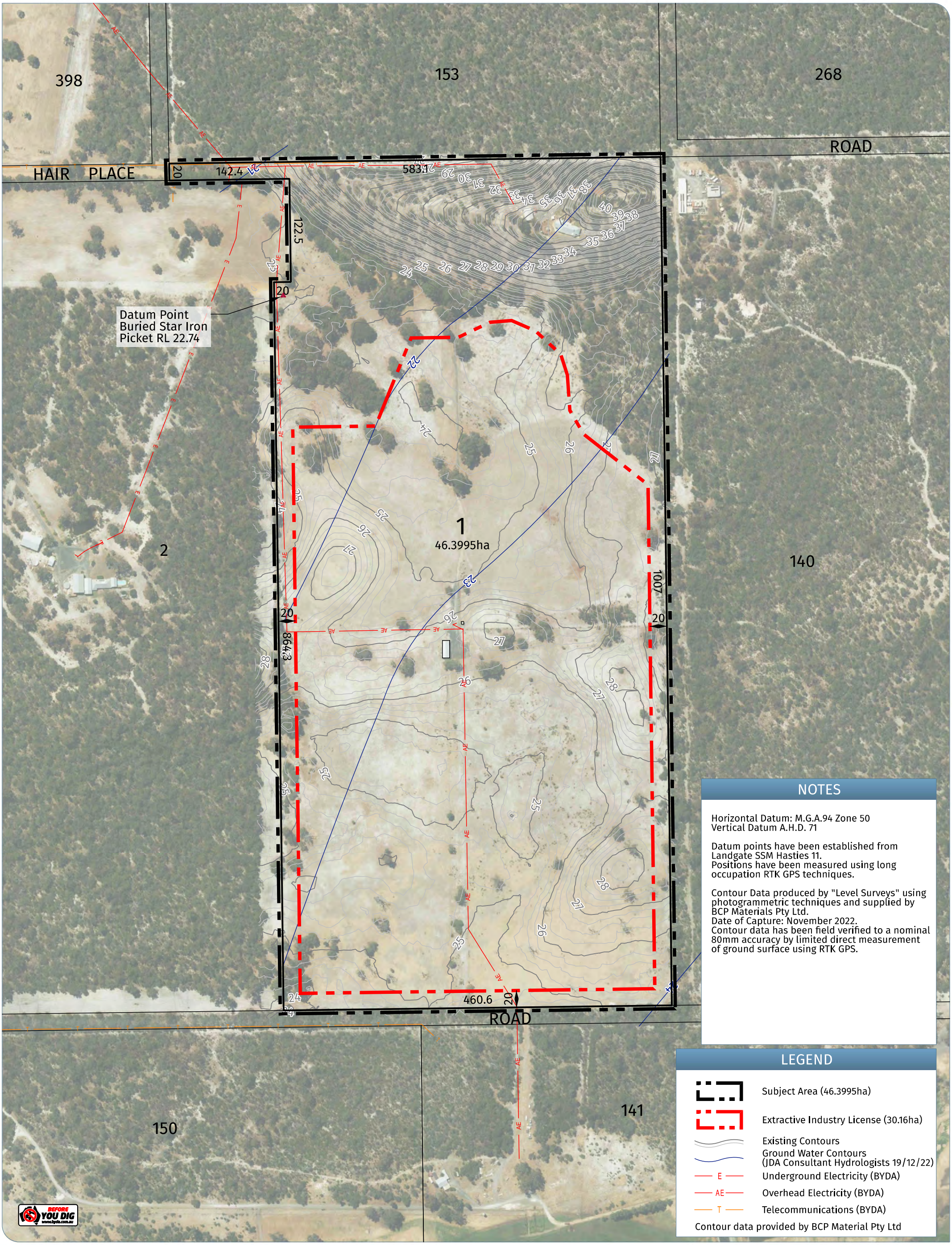
The proposed extraction area maintains a 20m separation from all lot boundaries and exceeds a 100m setback from all mapped geomorphic wetlands. The proposed development is therefore compliance wit

EPA Separation Distances between Industrial and Sensitive Land Uses (GS3)

The Environmental Protection Authority (EPA) has prepared a guiding document for assessment of environmental factors associated with the separation distances between sensitive land uses and Industrial land uses.

The proposed extractive industry is of a nature which reflects the 'Extractive Industry – Sand and Limestone' industry listed within Appendix 1. The relevant buffer distance is recommended to be 300–500m to sensitive land uses, depending on the size and nature of operations, with key impacts associated with operations being noise and dust.

Appendix C – Development Plans



NOTES

Horizontal Datum: M.G.A.94 Zone 50
Vertical Datum A.H.D. 71

Datum points have been established from Landgate SSM Hasties 11.
Positions have been measured using long occupation RTK GPS techniques.

Contour Data produced by "Level Surveys" using photogrammetric techniques and supplied by BCP Materials Pty Ltd.
Date of Capture: November 2022.
Contour data has been field verified to a nominal 80mm accuracy by limited direct measurement of ground surface using RTK GPS.

LEGEND

- Subject Area (46.3995ha)
- Extractive Industry License (30.16ha)
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- E — Underground Electricity (BYDA)
- AE — Overhead Electricity (BYDA)
- T — Telecommunications (BYDA)

Contour data provided by BCP Material Pty Ltd

EXISTING CONTOUR AND FEATURE PLAN

Lot 1 (No. 34) Hair Place,
NORTH BOYANUP

Plan No.	23424-01
Date	01/08/23
Drawn	NP
Checked	DPJ
Revision	C
Scale	1:4000@A3

0 50m 100m

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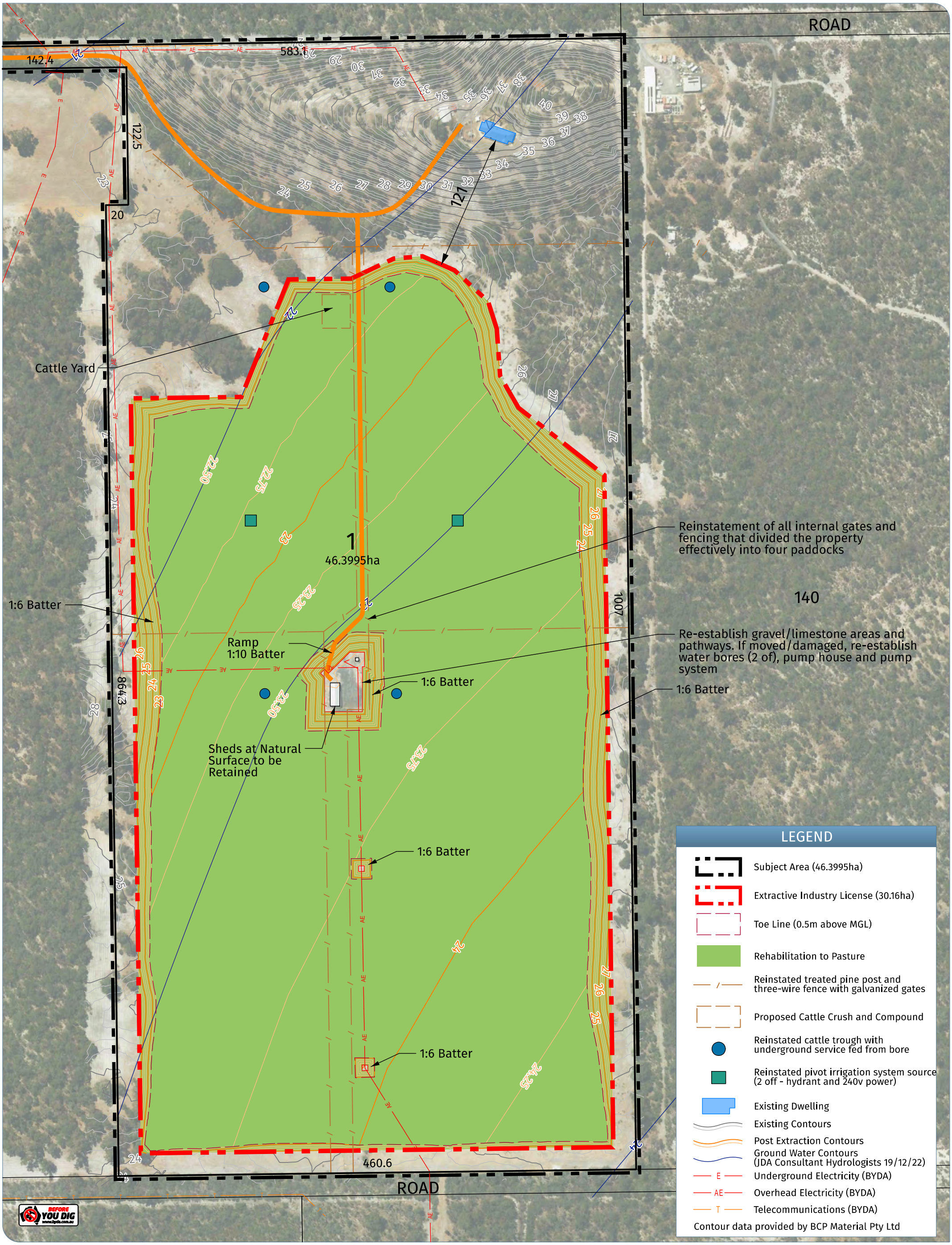

LAND RE-ESTABLISHMENT PLAN

Lot 1 (No. 34) Hair Place, NORTH BOYANUP

Plan No.	23424-03
Date	30/07/24
Drawn	NP
Checked	DPJ
Revision	B
Scale	1:3000@A3

0 40m 80m

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LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- Underground Electricity (BYDA)
- Overhead Electricity (BYDA)
- Telecommunications (BYDA)
- Stage Boundary (approx 2ha)
- Topsoil Stockpile Area (approx 500m²)
- Internal Driveway (Unsealed)
- Internal Haulage Route (Unsealed)
- Staged Internal Access (Unsealed)
- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
153
HAIR PLACE
142.2
583.4
122.6
20
21
22
256
Datum Point
Buried Star Iron
Picket RL 22.74
3m Bund Height for Stage 1
1
2ha
3m Bund Height for Stage 15
15
2ha
2.5m Bund Height for Stage 2
2
1.91ha
3m Bund Height for Stage 14
14
2ha
1
46.3995ha
3
2ha
Existing Central Pivot Infrastructure to be retained
2
210.3
864.6
1006.9
140
13
2ha
4
2ha
Existing Farm Shed to be retained
3m Bund Height for Stages 12 and 13
12
2ha
5
2ha
11
2ha
6
2ha
10
2ha
7
2ha
3.5m Bund Height for Stage 7
9
2ha
8
2ha
3.5m Bund Height for Stages 8,9 and 10
460.7
ROAD
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 3 Sept 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

element.
Level 18, 191 St Georges Terrace, Perth Western Australia 6000.
PO Box 7375 Cloisters Square, Perth Western Australia 6850.
T. +61 8 9289 8300 | **E.** hello@elementwa.com.au **elementwa.com.au**

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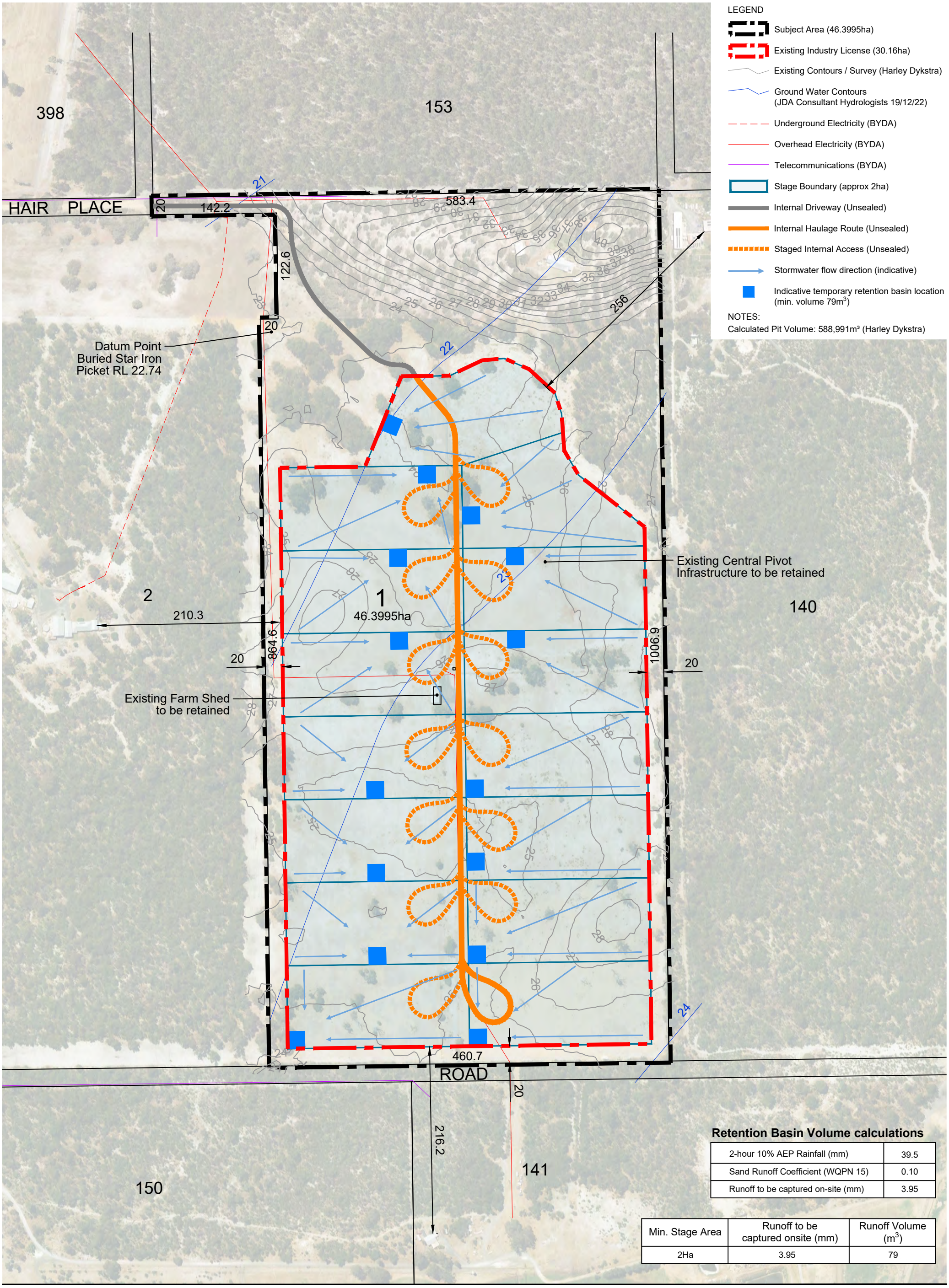

Retention Basin Volume calculations

2-hour 10% AEP Rainfall (mm)	39.5
Sand Runoff Coefficient (WQPN 15)	0.10
Runoff to be captured on-site (mm)	3.95

Min. Stage Area	Runoff to be captured onsite (mm)	Runoff Volume (m^3)
2Ha	3.95	79

On-site Stormwater Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 4 Sept 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01B** Staff: DL GW Checked: DL

0 80m

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Appendix D – Acoustic Report

SAND EXTRACTION OPERATIONS

34 HAIR PLACE
NORTH BOYANUP

ACOUSTIC ASSESSMENT

AUGUST 2025

OUR REFERENCE: 31130-3-23099

Rochdale Holdings Pty Ltd A.B.N. 85 009 049 067 trading as:
HERRING STORER ACOUSTICS
P.O. Box 219, Como, W.A. 6952
(08) 9367 6200
hsa@hsacoustics.com.au

DOCUMENT CONTROL PAGE

ACOUSTIC ASSESSMENT

SAND EXTRACTION – NORTH BOYANUP

Job No: 23099

Document Reference: 31130-3-23099

FOR

ELEMENT

DOCUMENT INFORMATION			
Author:	Tim Reynolds	**Checked By:**	Paul Daly
Date of Issue:	07 June 2023		

REVISION HISTORY

Revision	Description	Date	Author	Checked
1	Revised stages	05/09/2023	TR	N/A
2	Revised Staging Plan	05/08/2025	TR	N/A

DOCUMENT DISTRIBUTION

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APPENDICIES

A Figure A1 – Staging Plan

B Noise Contours

1. INTRODUCTION

Herring Storer Acoustics was commissioned by Element to undertake an acoustic assessment of noise emissions from a proposed sand extraction operation to be located at 34 Hair Place, North Boyanup.

The sand extraction operation entails the usage of a front end loader and a screen.

This assessment takes into account noise emissions from both the sand extraction and the transport of sand off site via truck. The assessment is provided to support the works approval process.

Operational hours for the site are proposed to be Monday to Friday 07:00 to 18:00 and Saturday's 07:00 to12:00 hours. No operations on Sundays or Public Holidays.

As part of the study, the following was carried out:

- Identification of individual operations and the associated noise levels.
- Assess the predicted noise levels at the nearest surrounding noise sensitive premises for compliance with the appropriate criteria.
- If exceedances are predicted, comment on possible noise amelioration options for compliance with the appropriate criteria.

For information, a locality plan is shown in Appendix A.

2. SUMMARY

Assessment has been conducted on the proposed sand extraction operation at 34 Hair Place, North Boyanup.

The applicable criterion for pit operations, including truck movements, would be the assigned L_{A10} day period noise of between 45 and 47 dB(A) for the nearest residential locations. Noise received at the nearest residential premises has, for the worst case, been determined to be 40 dB(A) for the sand extraction operations. Worst case, being in relation to both location and stage of operation. The above noise levels have been considered to contain tonal characteristics, therefore an +5 dB(A) penalty, is applicable. Thus, with the bunding as outlined in Section 7 – Noise Management Plan and shown the Staging Plan attached in Appendix A, compliance with the Regulatory criteria would be achieved.

Given these operating parameters, with the inclusion of the bunding as outlined the Staging Plan attached in Appendix A, noise levels received at the nearest premises has been determined to comply with the *Environmental Protection (Noise) Regulations 1997* for the operating times as outlined in this assessment.

3. CRITERIA

The allowable noise level at the surrounding locales is prescribed by the *Environmental Protection (Noise) Regulations 1997*. Regulations 7 & 8 stipulate maximum allowable external noise levels determined by the calculation of an influencing factor, which is then added to the base levels shown below. The influencing factor is calculated for the usage of land within two circles, having radii of 100m and 450m from the premises of concern. Table 3.1 lists the baseline assigned noise levels.

TABLE 3.1 - BASELINE ASSIGNED OUTDOOR NOISE LEVEL

Premises Receiving Noise	Time of Day	Assigned Level (dB)		
		L_{A10}	L_{A1}	L_{Amax}
Noise sensitive premises: highly sensitive area	0700 - 1900 hours Monday to Saturday (Day)	45 + IF	55 + IF	65 + IF
	0900 - 1900 hours Sunday and Public Holidays (Sunday / Public Holiday Day)	40 + IF	50 + IF	65 + IF
	1900 - 2200 hours all days (Evening)	40 + IF	50 + IF	55 + IF
	2200 hours on any day to 0700 hours Monday to Saturday and 0900 hours Sunday and Public Holidays (Night)	35 + IF	45 + IF	55 + IF
Noise sensitive premises: other than highly sensitive area	At all times	60	75	80

Note: L_{A10} is the noise level exceeded for 10% of the time.
L_{A1} is the noise level exceeded for 1% of the time.
L_{Amax} is the maximum noise level.
IF is the influencing factor.

The "Highly sensitive area" of a noise sensitive premises means:

that area (if any) of noise sensitive premises comprising —

(a) a building, or a part of a building, on the premises that is used for a noise sensitive purpose; and
(b) any other part of the premises within 15 m of that building or that part of the building;

It is a requirement that received noise be free of annoying characteristics (tonality, modulation and impulsiveness), defined below as per Regulation 9.

"impulsiveness" means a variation in the emission of a noise where the difference between L_{Apeak} and $L_{Amax\ Slow}$ is more than 15 dB when determined for a single representative event;

"modulation" means a variation in the emission of noise that –

(a) is more than 3dB $L_{A\ Fast}$ or is more than 3 dB $L_{A\ Fast}$ in any one-third octave band;
(b) is present for more at least 10% of the representative assessment period; and
(c) is regular, cyclic and audible;

"tonality" means the presence in the noise emission of tonal characteristics where the difference between –

(a) the A-weighted sound pressure level in any one-third octave band; and
(b) the arithmetic average of the A-weighted sound pressure levels in the 2 adjacent one-third octave bands,

is greater than 3 dB when the sound pressure levels are determined as $L_{Aeq,T}$ levels where the time period T is greater than 10% of the representative assessment period, or greater than 8 dB at any time when the sound pressure levels are determined as $L_{A\ Slow}$ levels.

Where the noise emission is not music, if the above characteristics exist and cannot be practicably removed, then any measured level is adjusted according to Table 3.2 below.

TABLE 3.2 - ADJUSTMENTS TO MEASURED LEVELS

Where **tonality** is present	Where **modulation** is present	Where **impulsiveness** is present
+5 dB(A)	+5 dB(A)	+10 dB(A)

Note: These adjustments are cumulative to a maximum of 15 dB.

The nearest noise sensitive premises to the proposed development have been identified on Figure 1.

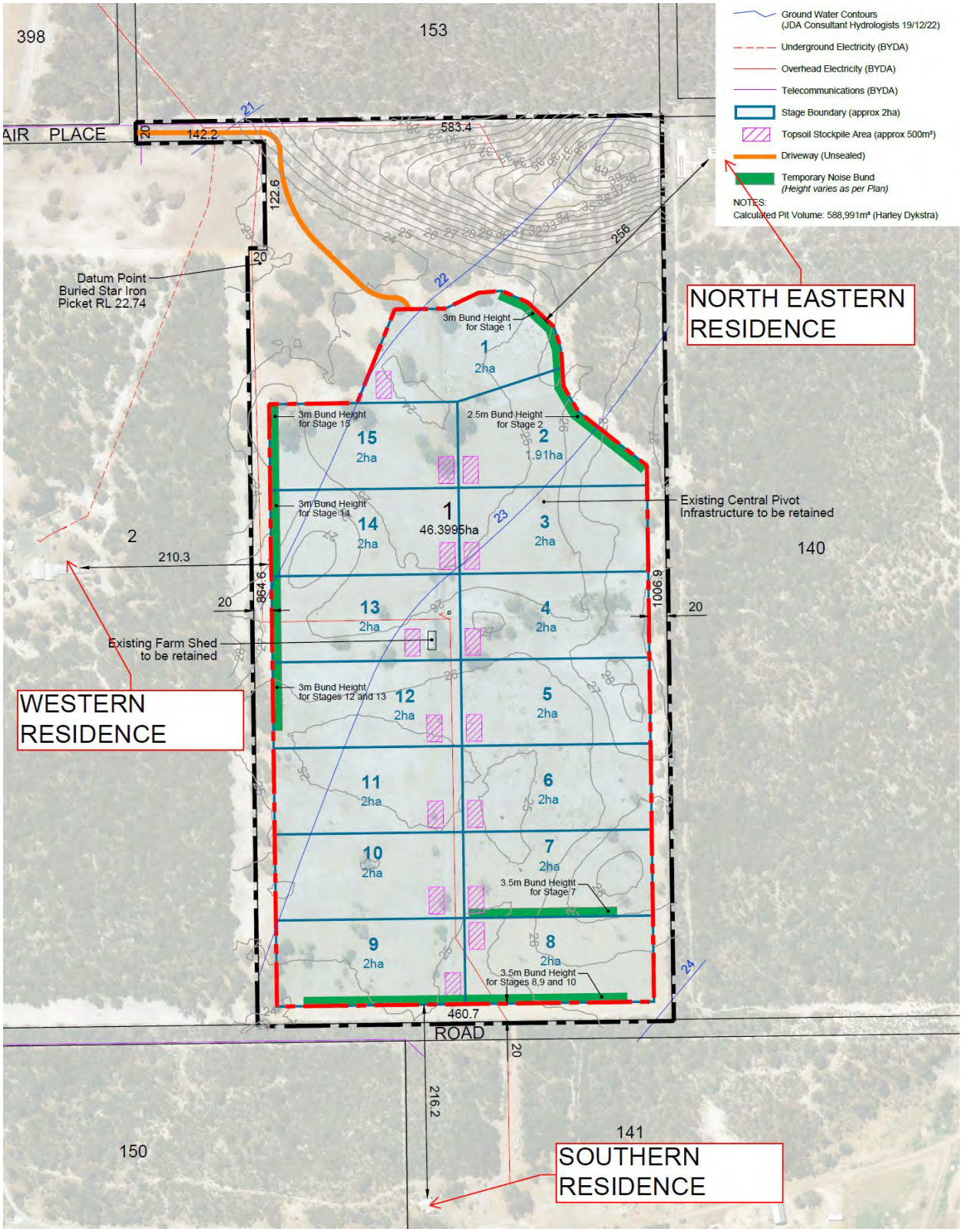


FIGURE 1 – RECEIVER LOCATIONS

The influencing Factor for the neighboring residence has been determined as, listed in Table 3.3.

TABLE 3.3 – INFLUENCING FACTORS

Influencing Factor (dB)	Location		
	North East (Lot 140)	South (Lot 141)	West (Lot 2)
Industrial in Inner Circle	1.6 (16%)	0	0
% of Industrial in Outer Circle	2.4 (24%)	1.7 (17%)	2.0 (20%)
Influencing Factor (dB)	+4 dB	1.7 (rounded to +2 dB)	+2 dB

Based on the Influencing Factors, the applicable Assigned Day Period noise levels would be as Listed in Table 3.4.

TABLE 3.4 - ASSIGNED OUTDOOR NOISE LEVEL

Residence	Time of Day	Assigned Level (dB)		
		$L_{A\ 10}$	$L_{A\ 1}$	$L_{A\ max}$
North East (Lot 140)	0700 - 1900 hours Monday to Saturday (Day)	49	59	69
South (Lot 141)		47	57	67
West (Lot 2)		47	57	67

Noise emissions from the pit operations would occur for more than 10% of the time. Therefore, noise received at the neighboring residences from the sand extraction needs to comply with the assigned L_{A10} day period noise levels of between 47 and 49 dB(A).

With around 15 truck movements per hour, noise emissions from truck movements would occur also occur for more than 10% of the time. Therefore, noise received at the neighboring residences from truck movements needs to comply with the assigned L_{A10} day period noise level of between 47 and 49 dB(A).

4. CALCULATED NOISE LEVELS

Noise received at the nearest neighbouring residential premises, due to noise associated with the proposed sand extraction operations, were modelled with the computer programme SoundPlan. Sound power levels used for the calculations are based on measured sound pressure levels of similar equipment proposed for use on site.

The modelling of noise levels has been based on noise sources and sound power levels shown in Table 4.1.

TABLE 4.1 – SOUND POWER LEVEL - NOISE SOURCES dB(A)

Source	Sound Power Level (dB(A))
Front End Loader (FEL)	105
Screen	101
Road Truck	97

Due to the nature of sand extraction operations, the equipment used for the sand extraction are confined to the “pit”. Whilst the pit tends to move with the operations, the barrier effect of the confines (pit walls and stockpile) would be always present.

From information received, it is proposed that the sand extraction would, as shown in Figure 01, start in the northeast corner (Stage 1), then head in a southernly direction for Stage 1 to 8, then eastward for Stage 9 and then for Stage 9 to 15, in a northerly direction. With this proposed staging, some bunding is required to ensure compliance. This bunding is shown on Figures 8.1 to 8.4 in Section 7 – Noise Management Plan.

Based on the above equipment, a number of scenarios were developed for the significant stages (i.e. with regards to noise). This scenario allows for all equipment to be operating at the same time, within various stages of operation. Thus, a combined noise contour plot was development for the pit operations. However, with the equipment and personnel on site, the front end loader would be the main contributing noise source.

The following input data was used in the calculations:

a) Provided backgrounds;

b) Sound Power Levels listed in Table 4.1; and

c) Ground contours provided by client and from Google Earth, with the base level on the pit operations being an AMD of 25 metres. The final contours where as provided.

Weather conditions for modelling were as stipulated in the Environmental Protection Authority's "*Draft Guidance for Assessment of Environmental Factors No. 8 - Environmental Noise"* and for the day period are as listed in Table 4.2.

TABLE 4.2 – WEATHER CONDITIONS

Condition	Day
Temperature	20°C
Relative humidity	50%
Pasquill Stability Class	E
Wind speed	4 m/s*

* From sources, towards receivers.

With regards to truck movement to and from the operations, to determine the worst case noise level that would be received at the neighbouring premises, a noise model was run assuming a truck movement around the boundary of the site.

5. RESULTS

Calculated noise levels associated with the noise emissions from the proposed sand extraction for the assumed scenario is summarised below in Table 5.1. Figure B1 in Appendix B shows the combined noise contour plot for the various stages of the pit operations, with Figure B2 showing the noise contours associated with the trucks.

TABLE 5.1 – CALCULATED NOISE LEVEL

Residence	Calculated Noise Level (dB(A))	
	All Equipment Operating	Truck Movement
North East (Lot 140)	40	31
South (Lot 141)	40	30
West (Lot 2)	39	32

6. ASSESSMENT

Based on calculated noise levels at the nearest premises, noise levels could be considered as being tonal in characteristics. Therefore, a +5 dB(A) penalty has been included to allow for a tonal component.

Hence, Table 6.1 summarises the applicable Assigned Noise Levels, and assessable noise level emissions, being the combined equipment and truck movement total noise level received at the neighbouring residences.

TABLE 6.1 – ASSESSMENT OF NOISE LEVELS

Residence	Assessable Noise Level (dB(A)) All Equipment Operating + Truck Movements
North East (Lot 140)	40 (45)
South (Lot 141)	40 (45)
West (Lot 2)	40 (45)

( ) include a +5 dB(A) penalty for tonal characteristics.

It is noted that the noise level stated above to the truck movements would be considered the maximum noise level, therefore, the above combined total noise level received at the neighbouring residence would be conservative.

Based on the assessable noise level above, comparison against the relevant assigned noise level is contained in Table 6.2.

TABLE 6.2 – ASSESSMENT OF NOISE LEVELS
PIT OPERATIONS (INCLUDING TRUCK MOVEMENTS)

Premises Receiving Noise	Assessable Noise Level dB(A)	Time of Day	Assigned L_{A10} Level (dB)	Compliance
North East (Lot 140)	45	0700 - 1900 hours Monday to Saturday (Day)	49	Complies
South (Lot 141)	45		47	Complies
West (Lot 2)	45		47	Complies

7. NOISE MANAGEMENT PLAN

With regards to compliance, noise management is required for Stages 1, 2, 7, 8, 9, 10, 12, 13, 14 and 15.

With regards to the neighbouring residences, the following stages are critical with regards to maintaining compliance :

North Eastern Residence	-	Stages 1 and 2.
Southern Residence	-	Stages 7 to 10.
Western Residence	-	Stage 12 to 15.

We note that for the other stages, be Stages 3 to 6 and 11, compliance would be achieved at all times without the requirement for any noise management.

Generally, the following are required :

- Although exempt from the regulations, being a “warning device”, it is recommended that equipment reverse alarms be lower frequency output units or broadband “crocker” type units.

- Although, to be conservative and not included in any modelling, it is noted that the screening unit would be surrounded by stockpiles. Thus, it is recommended that the screen be orientated such that the discharge / stockpiles are located between the screen and the main residence of concern.

Thus, to maintain compliance, the following noise managements for the stages are required.

7.1 STAGES 1 AND 2

Bunding as shown on Figure 7.1 is required.

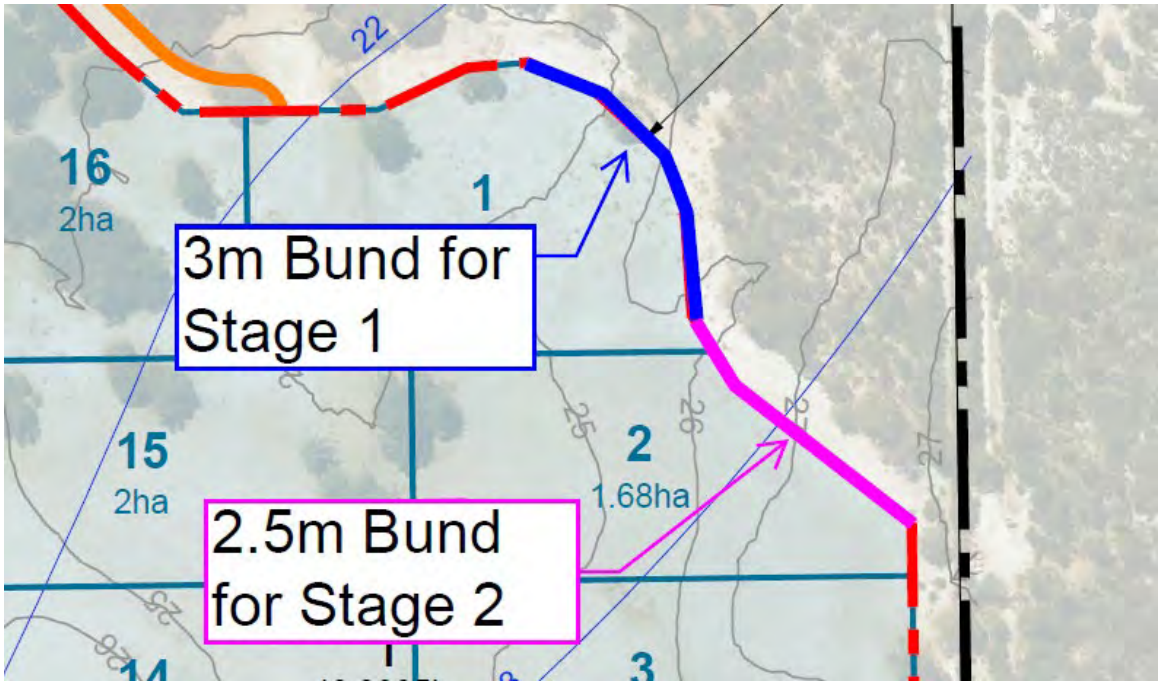


FIGURE 7.1 – BUNDING FOR STAGES 1 and 2

Although, with the above bunding compliance is achieved, it is recommended that sand from Stages 1 and 2 be extracted from the west towards the east, such that the face of the excavation is between the equipment the residence to the north east.

7.2 STAGE 7

With regards to compliance at the residence to the south, due to the existing ground contours, a temporary bund located as shown on Figure 7.2 is required.

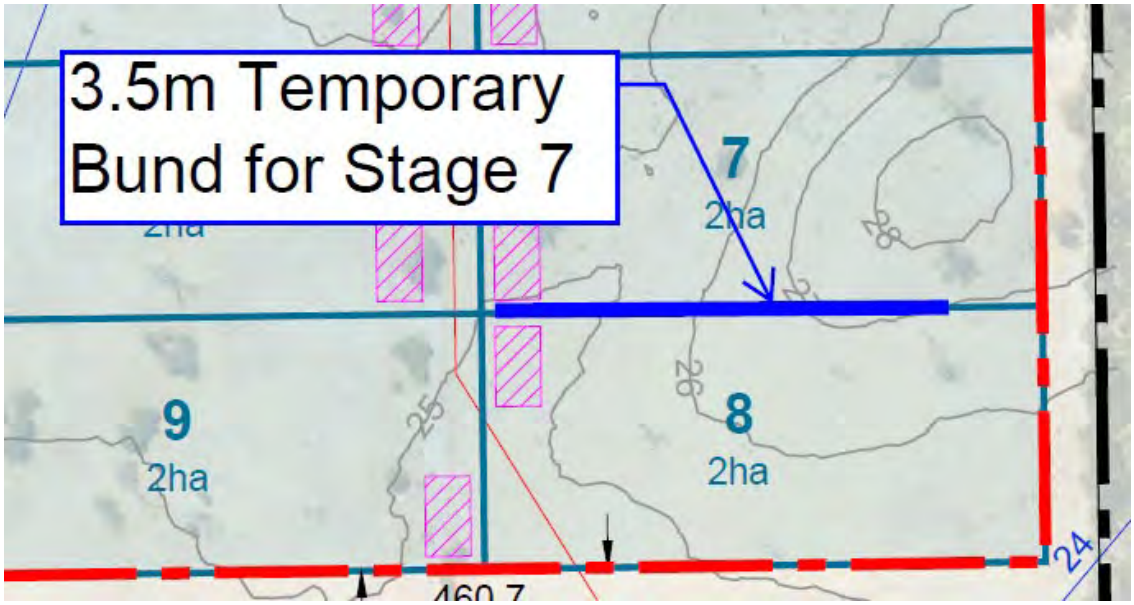


FIGURE 7.2 – TEMPORARY BUNDING FOR STAGE 7

Note : Once extraction of Stage 7 is complete, the above bund is no longer required.

7.3 STAGES 8, 9 AND 10

With regards to compliance at the residence to the south, the following bund as shown on Figure 7.3 is required.

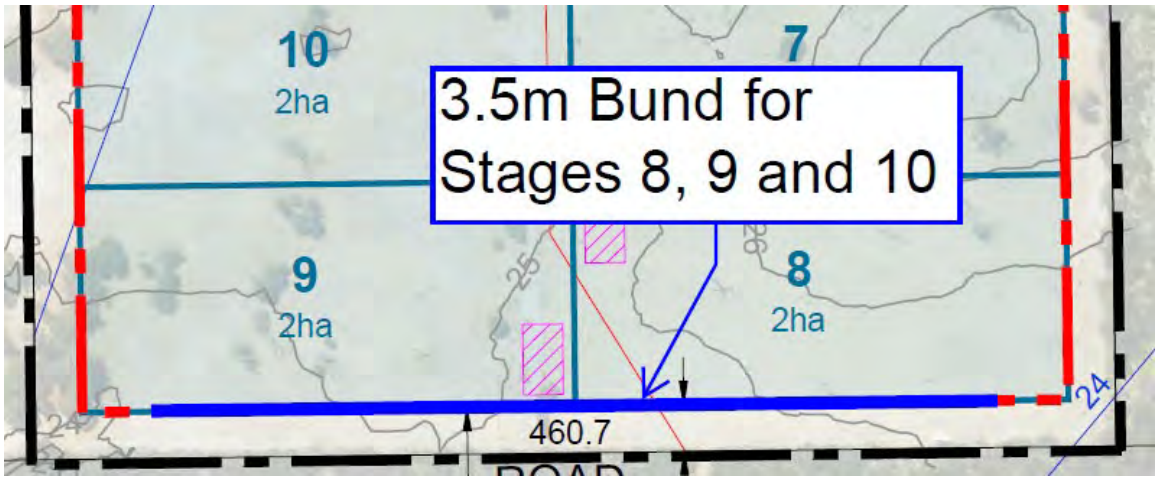


FIGURE 7.3 – BUNDING FOR STAGES 8, 9 and 10

7.4 STAGES 12 TO 15

With regards to compliance at the residence to the south, the following bund as shown on Figure 7.4 is required.

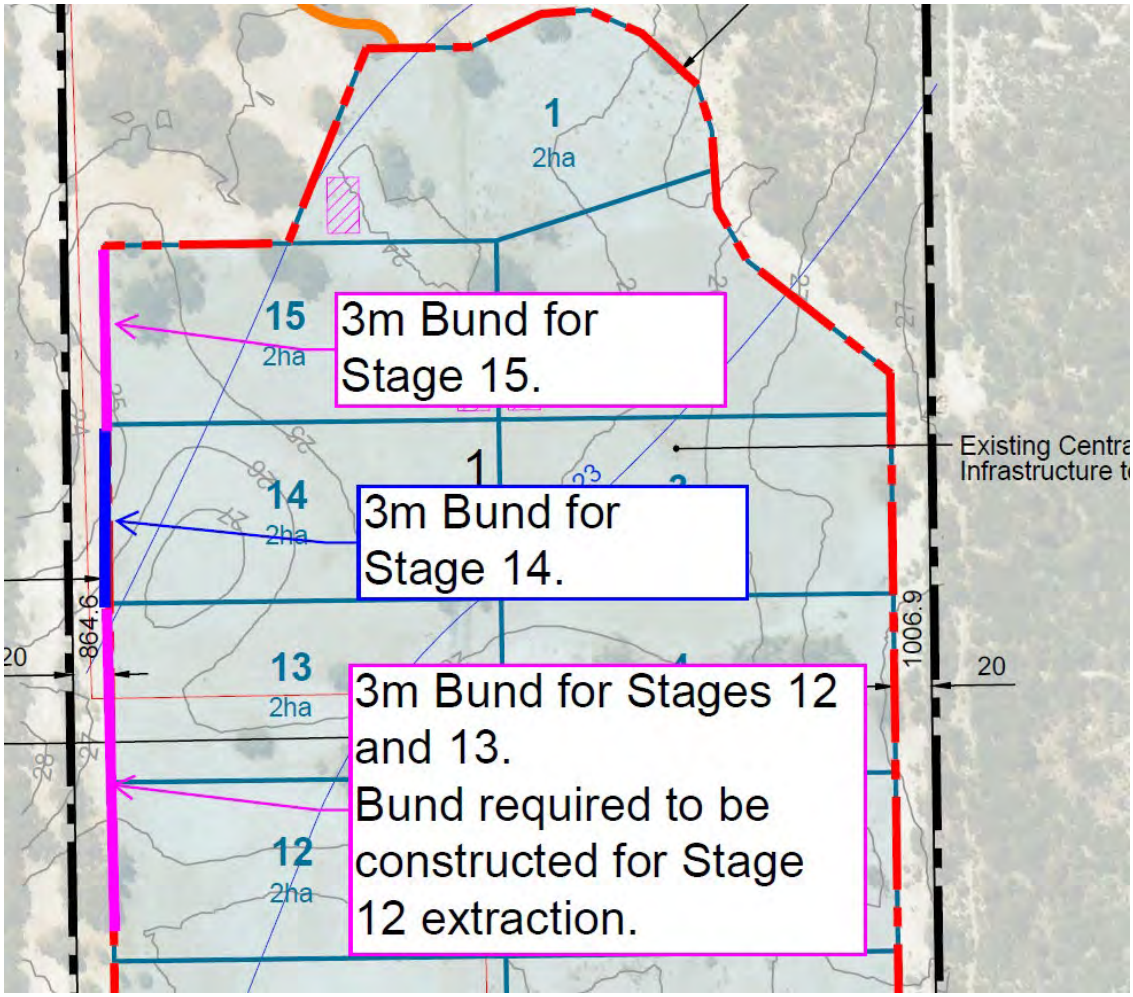


FIGURE 7.4 – BUNDING FOR STAGES 12 to 15

NOTE : The above bunds are also shown on the Staging plan attached in Appendix A.

8. CONCLUSION

Assessment has been conducted on the proposed sand extraction operation at 34 Hair Place, North Boyanup.

Operational hours for the site are proposed to be Monday to Friday 07:00 to 18:00 and Saturday's 07:00 to12:00 hours. No operations on Sundays or Public Holidays. Thus, noise received at the neighbouring premises needs to comply with the appropriate assigned day period noise level.

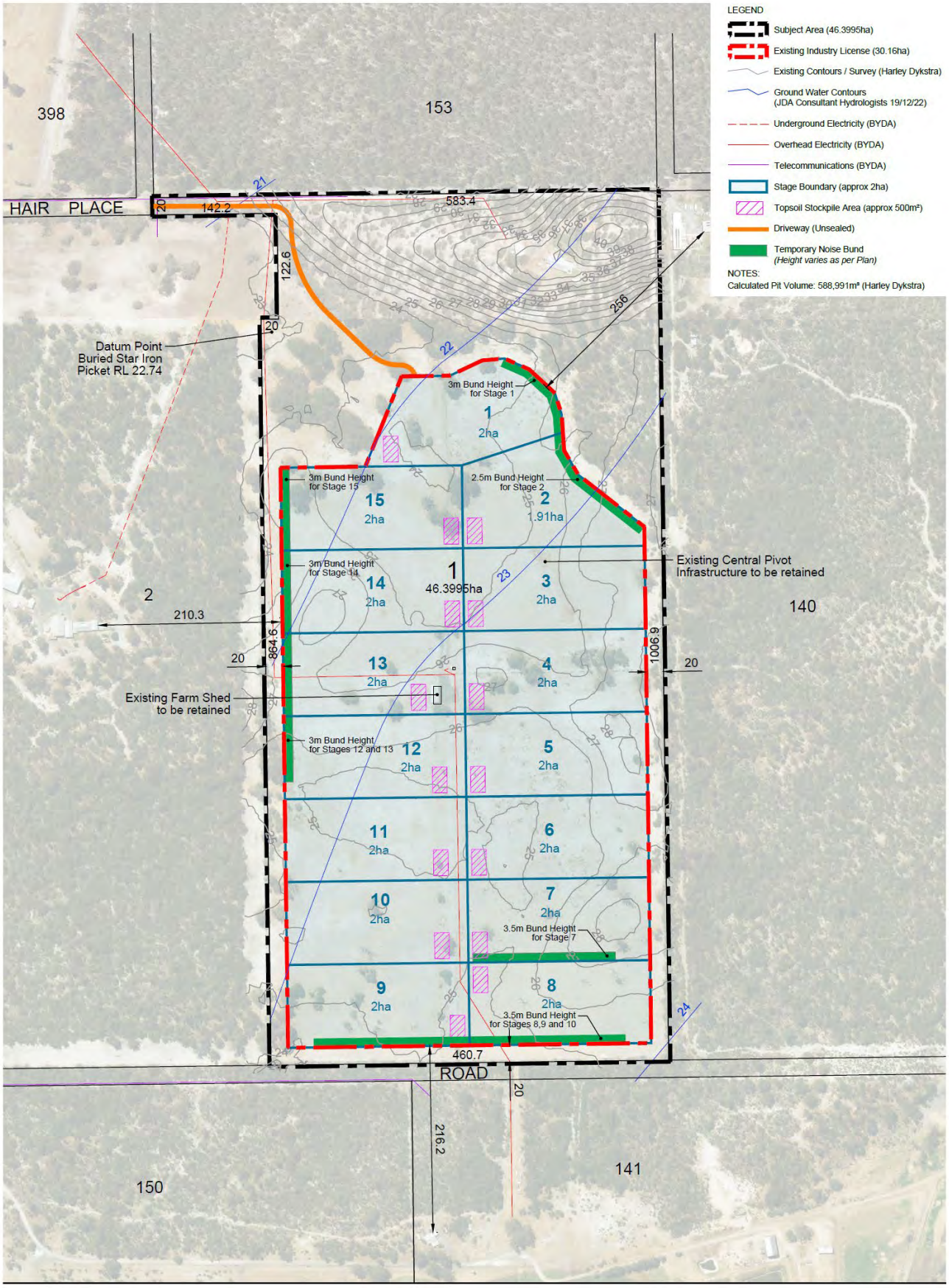
The applicable criterion for pit operations, including truck movements, would be the assigned L_{A10} day period noise of between 47 and 49 dB(A) for the nearest residential locations. Noise received at the nearest residential premises has for the sand extraction operations, for the worst case, been determined to be 45dB(A) with the inclusion of the + 5 dB(A) penalty for tonality. Worst case, being in relation to both location and stage of operation. Thus, with the Noise Managements, as outlined in Section 8 – Noise Management above, compliance with the Regulatory criteria would be achieved.

Given these operating parameters, with the inclusion of some noise managements, as outlined in Section 8 – Noise Management, noise received at the nearest premises has been determined to comply with the *Environmental Protection (Noise) Regulations 1997* for the operating times as outlined in this assessment.

We note that the bunding requirements are also shown on the Staging Plan Attached in Appendix A.

APPENDIX A

STAGING PLAN



Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: 22-368 CP01A Staff: DL GW Checked: DL

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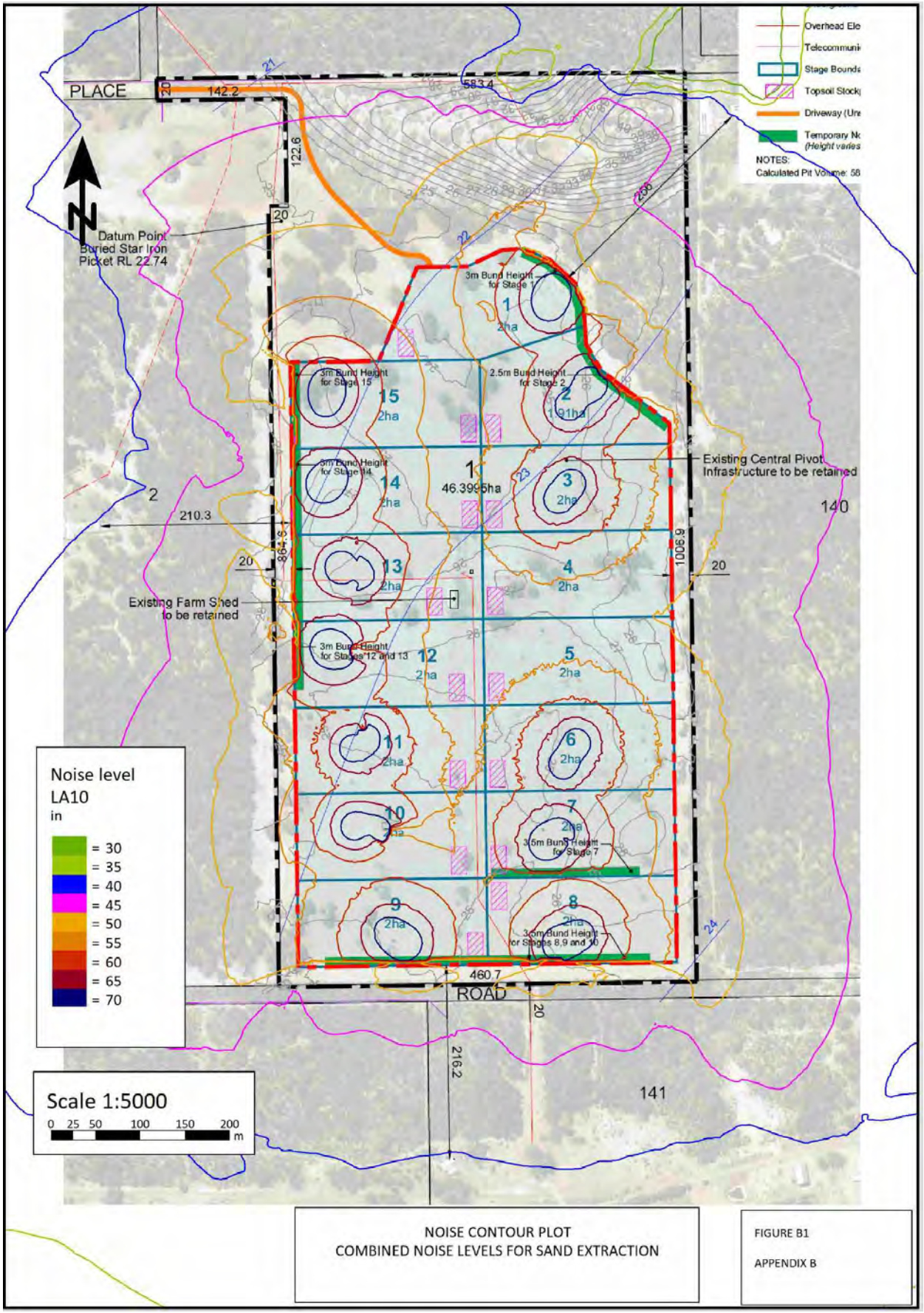
APPENDIX B

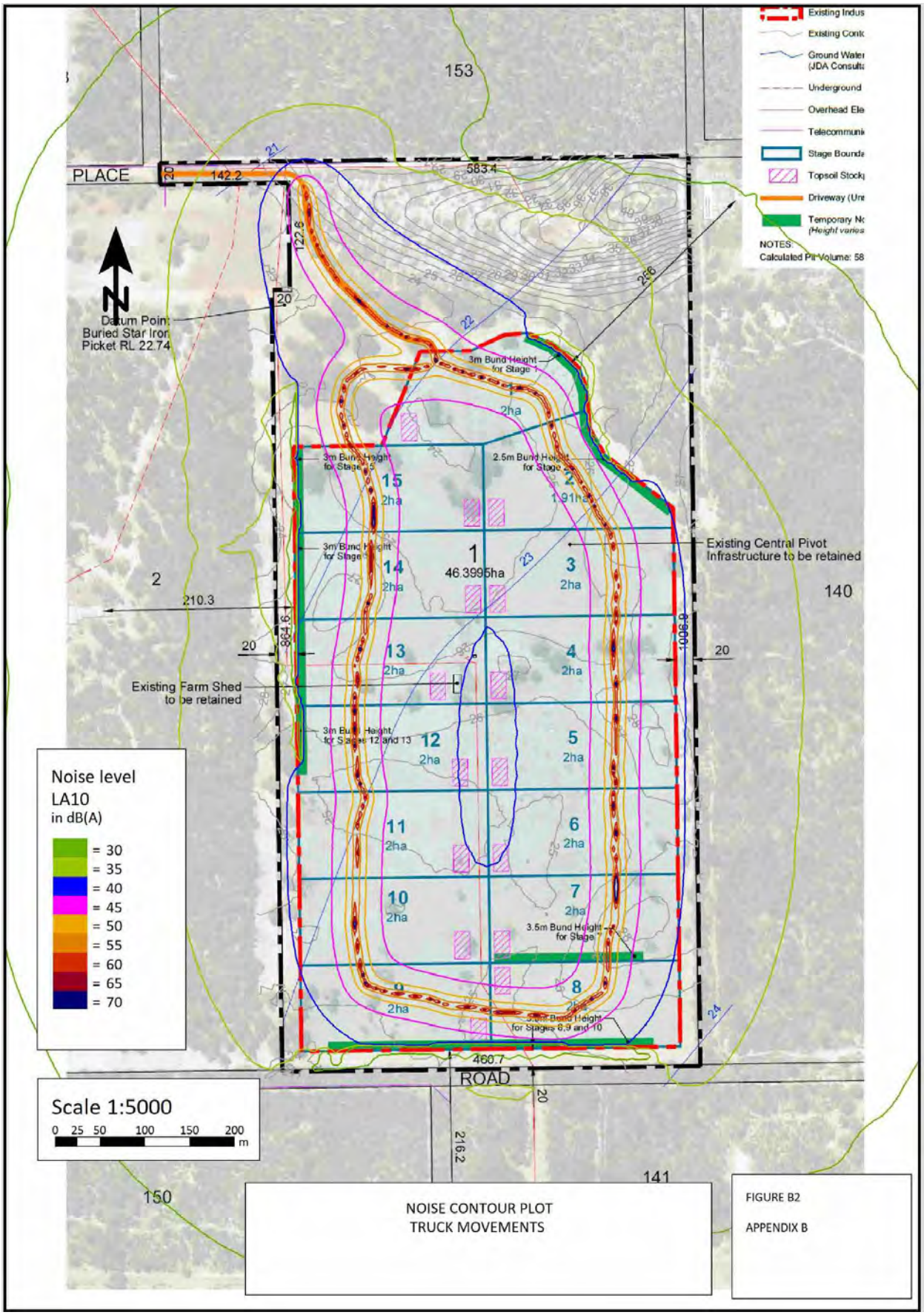
NOISE CONTOURS



NOISE CONTOUR PLOT
COMBINED NOISE LEVELS FOR SAND EXTRACTION

FIGURE B1

APPENDIX B


153
PLACE
142.2
583.4
127.6
256
Datum Point:
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Picket RL 22.74
3m Bund Height for Stage 1
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3m Bund Height for Stage 15
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Existing Farm Shed
to be retained
3m Bund Height for Stages 12 and 13
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3.5m Bund Height for Stage 7
9
2ha
8
3.5m Bund Height for Stages 8,9 and 10
460.7
ROAD
216.2
141
150
Noise level
LA10
in dB(A)
= 30
= 35
= 40
= 45
= 50
= 55
= 60
= 65
= 70
Scale 1:5000
0 25 50 100 150 200 m
NOISE CONTOUR PLOT
TRUCK MOVEMENTS
FIGURE B2
APPENDIX B

Appendix E – Traffic Management Plan and Impact Statement

WORKS ON ROADS
TRAFFIC MANAGEMENT PLAN

Prepared By: SJ TRAFFIC MANAGEMENT

MINOR WORKS ON LOCAL ROADS
TRUCK HALLAGE ROUTE
KEN BELL RD (2060068), NORTH BOYANUP
SJ TRAFFIC MANAGEMENT
BCP GROUP
DATE: 28th JULY 2025 – 28th JULY 2026

I, Beau Bridges (AUS-AWTM-24-11110-01), declare that I have designed this Traffic Management Plan following a site inspection undertaken on 18/07/25. The Traffic Management Plan prepared is in accordance with the Main Roads Code of Practice, AGTTM and AS 1742.3.

Signature: BHBridges …… Date: 18/07/25

	Name / Company	Accreditation Details	Date	Signed
TMP Designed by	Beau Bridges SJ Traffic Management	AUS-AWTM-24-11110-01	18/07/25	BHBridges
TMP Reviewed by	Jarryd De Strang SJ Traffic Management	AUS-AWTM-23-10025-01	18/07/25	
RTM reviewed and endorsed by:				
Compliance Audit to be undertaken by:				
Road Authority Review by:				
Road Authority Authorisation	Road authority authorisation of the implementation of traffic signs and devices is given for Traffic Management Plan No. SJTM-2724 REV 0 Signed: Authorised Officer: Date: (Print Name) Position: The authorisation may be found in Appendix E.			

TMP No: SJTM 2724	Rev. No: 0	Date: 18/07/25

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Revision Register

Revision Number	Revision Date	Comments	Section / Page No.	Revised By
0	18/07/25	Original TMP	ALL	Beau Bridges

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Glossary

Abbreviation	Definition
AADT	Annual Average Daily Traffic
AGTTM	Austroads Guide to Temporary Traffic Management
AS	Australian Standard
AS/NZ	Australian and New Zealand Standard
AWTM	Advanced Worksite Traffic Manager
BWTM	Basic Worksite Traffic Manager
CoP	Code of Practice (Main Roads WA)
DFES	Department of Fire and Emergency Services
HVS	Heavy Vehicle Services
IAW	In Accordance With
LGA	Local Government Area
MMS	Multi Message Sign
MRWA	Main Roads Western Australia
OS&H	Occupational Safety and Health
PPE	Personal Protective Equipment
PTCD	Portable Traffic Control Device
PTSS	Portable Traffic Signal System
RAV	Restricted Access Vehicle
RNOC	Road Network Operations Centre
RTM	Roadwork Traffic Manager
TC	Traffic Controller
TTM	Temporary Traffic Management
TMI	Traffic Management Implementer (Traffic Management Team Leader)
TGS	Traffic Guidance Scheme
TMA	Truck Mounted Attenuator
TMP	Traffic Management Plan
VMS	Variable Message Sign
VPD	Vehicles Per Day
VPH	Vehicles Per Hour
VPLPH	Vehicles Per Lane Per Hour
WTM	Worksite Traffic Manager

1. INTRODUCTION

1.1 Purpose and Scope

The purpose of this Traffic Management Plan (TMP) is to outline the traffic control and traffic management procedures to be implemented by the Project Manager and Project Contractors to manage potential hazards associated with the traffic environment during the project.

The scope of works involves Truck Haulage Route on Ken Bell Rd (2060068), This is located in the Shire of Capel.

The works include but not limited to:

- Truck Haulage Route.

Traffic Management will be implemented throughout the works including and advanced warning, 60km/h speed restriction (as shown in the Traffic Guidance Schemes) to always accommodate the machinery and workers on foot within the work site.

1.2 Objective and Strategies

The objectives of the Traffic Management Plan are to ensure:

- The safety of the road workers.
- All road users, including vulnerable road users, are safely guided around, through or past the work site.
- The performance of the road network is not unduly impacted and the disruption and inconvenience to all road users are minimised for the duration of the works.
- Impacts on users of the road reserve and adjacent properties and facilities are minimised.

In an effort to meet these objectives the Traffic Management Plan will incorporate the following strategies:

- Providing a sufficient number of traffic lanes to accommodate vehicle volumes.
- Ensuring delays are minimised.
- Ensuring all road users are managed including motorists, pedestrians, cyclists, people with disabilities and people using public transport.
- Ensuring work activities are carried out sequentially to minimise adverse impacts.
- Provision will be made for works personnel to enter the work area in a safe manner in accordance with safety procedures.
- All entry and exit movements to and from traffic streams must be in accordance with the requirements of safe working practices.

2. PROJECT OVERVIEW

2.1 Location

Figure 1 - Ken Bell Rd (2060068), North Boyanup

Site photos can be found in Appendix I

2.2 Project Details, Site Assessment and Site Constraint /Impacts

ITEM	DESCRIPTION
Project	Truck Haulage Route
Location	Ken Bell Rd (2060068), North Boyanup
Road Classification, Existing Speed Limit, Road Width	Local Access Road Derestricted Road Width: 8m
Road Authority	Shire of Capel
Local Government	Shire of Capel
Prime Contractor	BCP Group
Sub-Contractor	Element (SLR Group)
Scope of Works	Truck Haulage Route
Staging of Work / Temporary Traffic Management	**Stage 1:** Install the traffic scheme as per the TGS before the work commences. **Stage 2:** Truck Haulage Route. **Stage 3:** Removal of all traffic signs and devices.
Project Date	28th July 2025 – 28th July 2026
Hours / Days of Work	Monday – Sunday 06:00 – 18:00
Duration of Work	1 year
Other Constraints	There are no known other constraints during the time this TMP was designed.
Concurrent/adjacent Works or Projects	There are no known current or adjacent works during the time this TMP was designed.

2.3 Existing Traffic and Road Environment

ITEM	DESCRIPTION
Traffic Volume and Composition	Works will have a minimal effect on the traffic flows. Daily Traffic Counts can be found in 4.1.1.
Existing road configuration	In the area of works is a bidirectional single carriageway.
Existing pedestrian / cyclist facilities	There are no footpaths in the worksite.

2.4 Overview of Proposed TTM

ITEM	DESCRIPTION
Temporary Traffic Management Descriptions	This Traffic Management plan involves non-complex traffic arrangements as per section 4.2.3 of the Main Roads CoP. Advanced warning signage and a speed reduction to 60km/h. Aftercare – all TTM signage to be removed at the end of each shift and the road returned to normal road conditions.
Speed zone dates and times	60km/h temporary speed restriction during works between the hours of 06:00 and 18:00.
Lane Closures dates and times	Lane Closures are not within the scope of the design of the TMP.
Road Closures dates and times	Road closures are not within the scope of the design of the TMP.
Signal modifications description	There are no traffic signals within the area of works.
Proposed lane widths	Lane widths are not affected by these works.
Road Safety Barrier	Road safety barriers are not catered for in this TMP.

2.5 Project Representatives

POSITION	NAME	CONTACT DETAILS
Local Government	Shire of Capel	**Shire of Capel** A: 31 Forrest Road, Capel WA 6271 P: (08) 9727 0222 E: info@capel.wa.gov. au
Project Manager / Prime Contractor	Kyle Jackson	**BCP Group** A: Cable Sands Rd, Yalyalup, WA, 6280 P: 0438 792 202 E: kyle.jackson@bcpgroup.com.au
Site Supervisor/Manager		
TMP Design	Beau Bridges	**SJ Traffic Management** A: 68/70 Halifax Drive, Davenport WA 6230 P: 08 9731 5299 E: Beau.Bridges@sjtraffic.com
TMP Implementation	SJ Traffic Management	**SJ Traffic Management** A: 68/70 Halifax Drive, Davenport WA 6230 P: 08 9731 5299 E: operations@sjtraffic.com

BCP Group have engaged SJ Traffic Management to prepare this Traffic Management Plan and associated controls for the works.

The TMP will be implemented by SJ Traffic Management MRWA Registration # 0131 in accordance with the MRWA Code of Practice.

The Traffic Management Contractor will ensure that at all times during working hours a supervisory person will be onsite who is accredited in BWTM.

3. RISK MANAGEMENT

The following details the preliminary assessment of site hazards likely to be encountered, the level of risk associated with each, and the control proposed. Note that the risk level is the level of assessed risk *without* the controls in place. The controls listed have been determined as being appropriate in reducing the risk to a level that is acceptable.

The hierarchy of control has been utilised to ensure that the highest practicable level of protection and safety is selected:

- Elimination
- Substitution
- Isolation
- Engineering
- Administration
- Personal Protection Equipment

In evaluating the options, a key consideration is whether the option takes traffic around, through or past the worksite.

3.1 Risk Classification Tables

QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
1	Insignificant	Mid-block hourly traffic flow per lane is equal to or less than the allowable lane capacity detailed in AGTTM. No impact to the performance of the network. Affected intersection leg operates at a Level of Service (LoS) of A or B. No property damage.
2	Minor	Mid-block hourly traffic flow per lane is greater than the allowable road capacity and less than 110% of the allowable road capacity as detailed in AGTTM. Minor impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of C. Minor property damage.
3	Moderate	Midblock hourly traffic flow per lane is equal to and greater than 110% and less than 135% of allowable road capacity as detailed in AGTTM. Moderate impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of D. Moderate property damage.
4	Major	Midblock hourly traffic flow per lane is equal to and greater than 135% and less than 170% of allowable road capacity as detailed in AGTTM. Major impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of E. Major property damage.
5	Catastrophic	Midblock hourly traffic flow per lane is equal to and greater than 170% of allowable road capacity as detailed in AGTTM. Unacceptable impact to the performance of the network. Intersection performance operates at a Level of Service (LoS) of F. Total property damage.

WHS QUALITATIVE MEASURES OF CONSEQUENCE OR IMPACT

Level	Consequence	Description
1	Insignificant	No treatment required
2	Minor	First aid treatment required.
3	Moderate	Medical treatment required or Lost Time Injury
4	Major	Single fatality or major injuries or severe permanent disablement
5	Catastrophic	Multiple fatalities.

QUALITATIVE MEASURES OF LIKELIHOOD

Level	Likelihood	Description
A	Almost certain	The event or hazard: is expected to occur in most circumstances, will probably occur with a frequency in excess of 10 times per year.
B	Likely	The event or hazard: Will probably occur in most circumstances, will probably occur with a frequency of between 1 and 10 times per year.
C	Possible	The event or hazard: might occur at some time, will probably occur with a frequency of 0.1 to 1 times per year (i.e. once in 1 to 10 years).
D	Unlikely	The event or hazard: could occur at some time, will probably occur with a frequency of 0.02 to 0.1 times per year (i.e. once in 10 to 50 years).
E	Rare	The event or hazard: may occur only in exceptional circumstances, will probably occur with a frequency of less than 0.02 times per year (i.e. less than once in 50 years).

IMPORTANT NOTE: The likelihood of an event or hazard occurring must first be assessed over the duration of the activity (i.e. “period of exposure”). For risk assessment purposes the assessed likelihood must then be proportioned for a “period of exposure” of one year.

Example: An activity has a duration of 6 weeks (i.e. “period of exposure” = 6 weeks). The event or hazard being considered is assessed as likely to occur once every 20 times the activity occurs (i.e. likelihood or frequency = 1 event/20 times activity occurs = 0.05 times per activity). Assessed annual likelihood or frequency = 0.05 times per activity x 52 weeks/6 weeks = 0.4 times per year. Assessed likelihood = Possible.

QUALITATIVE RISK ANALYSIS MATRIX – RISK RATING

	CONSEQUENCE				
Likelihood	**Insignificant (1)**	**Minor (2)**	**Moderate (3)**	**Major (4)**	**Catastrophic (5)**
Almost certain (A)	**Low 5**	**High 10**	**High 15**	**Very High 20**	**Very High 25**
Likely (B)	**Low 4**	**Medium 8**	**High 12**	**Very High 16**	**Very High 20**
Possible (C)	**Low 3**	**Low 6**	**Medium 9**	**High 12**	**High 15**
Unlikely (D)	**Low 2**	**Low 4**	**Low 6**	**Medium 8**	**High 10**
Rare (E)	**Low 1**	**Low 2**	**Low 3**	**Low 4**	**Medium 7**

MANAGEMENT APPROACH FOR RESIDUAL RISK RATING

Residual Risk Rating	Required Treatment
Very High	Unacceptable risk. **HOLD POINT**. Work cannot proceed until risk has been reduced.
High	High priority, WHS MR and Roadworks Traffic Manager (RTM) must review the risk assessment and approve the treatment and endorse the TGS prior to its implementation.
Medium	Medium Risk, standard traffic control and work practices subject to review by accredited AWTM personnel prior to implementation.
Low	Managed in accordance with the approved management procedures and traffic control practices.

3.2 Risk Register

Generic Risks

Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk			TMP/TGS Reference
			L	C	RATING		L	C	RATING	
1.	Mobile plant entering and leaving the site will result in conflict with through traffic, resulting in collision, and injury.	Medical treatment / asset damage.	B	3	H12	The TMP has outlined the procedures for construction traffic entering and leaving the worksite. See section 7.4.	E	3	L3	TMP SJTM2724 Section 7.4 Site Access for Work Vehicles
2.	Work vehicle completes a U turn manoeuvre during the TGS installation / removal process and will be hit by passing motorists in the trafficable lanes.	Major injuries, severe permanent disability, or death	C	4	H12	Safe turn locations must be discussed and agreed upon in a pre-start meeting. A lookout person must be used when required.	D	4	M8	TMP SJTM2724 Section 7.2 Sequence and Staging.
3.	Incorrectly installed temporary traffic management results in inadequate protection with workers being struck by motorists.	Major injuries, severe permanent disability, or death	B	4	VH16	Appropriately qualified and experienced personnel accredited with a BWTM as a minimum must be used for the implementation of all temporary signs and devices. The onsite supervisor will inspect the site to ensure that the temporary signs and devices have been erected and maintained on site and are in compliance with the endorsed TMP.	D	4	M8	TMP SJTM2724 Section 6.2 Roles and Responsibilities
4.	Vehicles not reducing speed on the approach to the worksite resulting in nonconformance of approach speeds which will result in workers on foot or TC being struck.	Major injuries, severe permanent disability, or death	C	4	H12	Traffic management personnel will ensure that the placement of temporary roadwork signs, devices and buffer zones adhere to the TMP, and tolerances allowed for. WTM/AWTM can increase sign spacing outside of	D	4	M8	TMP SJTM2724 Section 7.3.2 Tolerances on Positioning of Signs and Devices.

Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk			TMP/TGS Reference
			L	C	RATING		L	C	RATING	
						tolerances on approach to the work area as required.				
5.	Traffic controller crossing the road with heavy sandbags and signage resulting in slower than normal movements in front of traffic will result in being struck by vehicles.	Major injuries, severe permanent disability, or death	C	4	H12	Crossing the road should be avoided where possible and where it is undertaken a lookout person must be used for all activities.	D	4	M8	TMP SJTM2724 Section 4.5 Shadow Vehicles
6.	Road users disregard advance warning signs due to the length of the worksite will lead to driver negligence and lack of attention resulting in increased speeds and vehicle collisions within the worksite area.	Medical treatment / asset damage.	C	3	M9	Advanced warning signage must be located so that drivers' sight distance to the sign is maintained where they can be seen and read in adequate time.	D	3	L6	SJTM2724 TGS .01 & .02
						Repeater speed signs must be implemented every 500m and at every crest and intersection within the works area.				SJTM2724 TGS .01 & .02
7.	Poor visibility due to rain, fog, smoke etc, will cause vehicles to crash into other vehicles or workers on foot.	Major injuries, severe permanent disability, or death	C	4	H12	Traffic Management Personnel should relocate the approach signs within tolerances. If visibility is still poor, traffic control must be removed and works cease until safe to continue.	E	4	L4	TMP SJTM2724 Section 5.1.1 Adverse Weather
8.	Uneven ground likely to cause slips, trips, and falls Causing cuts, bruises, abrasions, broken bones, soft tissue injuries.	Medical treatment or lost time injury.	B	3	H12	Wear laced up steel capped boots, long pants, long sleeve shirt and gloves when handling signs and devices.	C	3	M9	TMP SJTM2724 Section 6.3 PPE
9.	Traffic management work vehicle pulling off the road resulting in blocking part of the traffic lane will be struck by motorists.	Major injuries, severe permanent disability, or death	B	4	VH16	Vehicle to park as far off the road safely, a lookout person to spot the traffic managers put out the signage and devices.	E	4	L4	SJTM Safe Work Method Statement Version 10.1.1

Site Specific Risks

Item	Risk Event	Consequence	Pre–treatment Risk			Treatment	Residual Risk			TMP/TGS Reference
			L	C	RATING		L	C	RATING	
10.	Signs blowing over due to weather conditions and traffic passing at increased speeds making public unaware of works or speed reductions in place resulting in high impact rear end collisions or workers on foot being struck.	Major injuries, severe permanent disability, or death.	B	4	VH16	Signage implemented must be adequately weighed down with sandbags or equivalent, IAW section 7.3.1.1 of this TMP. Signage is to be laid down when not in use / at the end of the day and not left up overnight. Signage will not be standing for 14 days or longer at any time.	E	4	L4	TMP SJTM2724 Section 7.3.2 Securing Signs & Devices
11.	Heavy vehicles stirring up dust to the properties on Ken Bell Rd.	Resident frustrations	C	2	L6	Implementation of a 60km/h speed restriction to act as dust suppression.	D	2	L4	TMP SJTM2724 Section 4.1.3 Temporary Speed Zones TGS 2724.01
12.	Residents unaware of the increase of heavy vehicles on Ken Bell Rd resulting in interaction between a heavy vehicle and the residents.	Serious injury of death	C	4	H12	BCP to arrange a notification to residents to ensure that they are aware of the increase of heavy vehicle movement on Ken Bell Rd.	D	4	M8	TGS 2724.01
13.	Truck movements traveling at higher speeds resulting in damaging the road due to it being unsurfaced (Dirt Road).	Asset damage to the road.	B	3	H12	Implementation of a 60km/h speed restriction to slow down the heavy vehicle movements to avoid the heavy vehicles damaging the road.	D	3	L6	TGS 2724.01

4. TRAFFIC MANAGEMENT PLANNING AND ASSESSMENT

4.1 Traffic Assessment and Analysis

4.1.1 Traffic and Speed Data

Ken Bell Rd (2060068), North Boyanup, traffic data was unavailable at the time of planning. During the 5-minute traffic count undertaken on the site inspection, 0 vehicles were counted

4.1.2 Traffic Flow Analysis

The proposed traffic management arrangements to facilitate the works involves advanced warning signage (Truck symbolic or Heavy vehicles) and a 60km/h speed reduction. The traffic management arrangements will have a negligible effect on traffic flows as traffic will not be stopped as a part of the traffic management.

4.1.3 Temporary Speed Zones

A temporary worksite speed limit of 60km/h at must be implemented for the duration of the works.

After work hours, the posted speed will be reinstated to normal conditions.

4.1.4 Existing Traffic signals

There are no existing traffic signals in the area of works.

4.1.5 Impact to adjoining network

The works are not expected to influence the adjoining road network within the area of works. If the works affect the adjoining road network the works must be put on hold until an acceptable solution can be found.

4.1.6 End of Queue Treatment

End of Queues are not applicable for these works.

4.1.7 Portable Traffic Control Devices (PTCDs)

These works do not require PTCD to be implemented.

4.1.8 Speed Management

works will have a temporary speed reduction of 60km/h. The work lane will be delineated from oncoming traffic.

Should motorist speed continually ignore the temporary speed restriction and exceed the temporary speed limit, the following should be considered where appropriate:

- Police enforcement.

4.1.9 Excavations or Above Ground Hazards

An excavation is a longitudinal depression with a side slope of 1.5 horizontal to 1 vertical or steeper adjacent to traffic There are no excavations expected deeper than 250mm within 2.5m of the trafficable lanes.

No excavations are scheduled during these works. If excavations are required, then SJ Traffic Management must be notified by Client/Contractor to ensure this document can be amended and resubmitted to the Road Authority.

Work vehicles, plant, machinery, and materials can produce an above ground hazard. Work vehicles, plant, machinery, and materials must remain within the work area that is located within a 60km/h speed restriction.

4.2 Road Users

4.2.1 Pedestrians

Pedestrians will not be affected by the implementation of the TGS's.

4.2.2 Cyclists

There is no cyclist paths affected within the work site area.

4.2.3 Public Transport

These works do not affect public transport services.

4.2.4 Heavy and Oversized Vehicles

The works are not expected to have any major impact heavy and oversized vehicles.

4.2.5 Existing Parking Facilities

There are no existing parking facilities affected by these works.

4.2.6 Access to Adjoining Properties / Business

Access to properties/businesses will not be affected by the works.

4.2.7 Rail Crossings

There are no active rail crossings in the area of works.

4.2.8 School Crossings

There are no school crossings within the worksite area.

4.2.9 Special Events and Other Works

Special Events

Contact has been made with the Shire of Capel and there are no special events scheduled whilst these works are taking place.

Other Works

There are no other works scheduled in this location during the construction period.

4.2.10 Emergency Vehicle Access

Emergency vehicles must be given priority through the worksite.

4.3 Night Work Provisions

Day works only; night works are not planned. However, traffic personnel and workers may be in dark conditions at the start and end of shifts. All personnel are to wear PPE that meets AS/NZS 4602.1:2011 High-Visibility Safety Garments for Day/Night use and take additional caution in semi dark conditions.

4.4 Road Safety Barriers

Temporary Road Safety Barriers are not catered for within the scope of this TMP. When there are existing road barriers, traffic management signs and devices will be minimised adjacent to barriers due to the lack of escape route to traffic management personnel and a Lookout Person must be utilised.

4.5 Shadow Vehicles

Shadow vehicle's are not required as the roads in which this TMP will operate on are not part of the Main Roads WA road network, nor do they exceed 15,000 vpd.

4.6 Consultation and Communication / Notification

4.6.1 Other Agencies

- **Road Authority**
  Approvals must be obtained for the implementation of this TMP from the Shire of Capel.
- **Service Providers**
  No services are to be affected and as such no approvals necessary.
- **Environmental Protection Agency**
  Not Applicable.
- **Department of Parks and Wildlife**
  Not Applicable.

4.6.2 Public

The residents will be notified by BCP / Element about any works that would interfere or delay travels.

5. SITE ASSESSMENT

5.1 Provision to Address Environmental Conditions

5.1.1 Adverse Weather

Weather may be expected to adversely impact on the effectiveness of the traffic control detailed on the attached TGS's, including limiting the sight distance motorists have. For reference on the recommended minimum sight distance to traffic control devices, please refer to the AGTTM Part 3 Table 2.3 below.

AGTTM Part 3; Table 2.3: Recommended sight distance to a traffic control device

Speed (km/h)	Distance (m)
≤45	50
46 - 55	70
56 - 65	90
≥66	Two times the speed (km/h)

Notwithstanding this, should adverse weather conditions be encountered during the works, the following contingency plans should be activated.

Note: any adjustments to the plan must be risk assessed and approved by someone holding a WTM or AWTM accreditation. Major changes will require road authority approval.

Rain

In the event of rain, an on-site assessment must be made and sign spacing, and tapers may be extended by 25% to account for increased stopping distances. Slippery (T3-3) signs may be placed as required and all changes must be recorded in the daily diary.

If rain occurs, Traffic Management Personnel must inspect the site and where signage and / or devices are not clearly visible, signage may need to be adjusted to improve visibility or if necessary, provide additional signage and delineation. Where stopping distances are adversely affected by wet surfaces, spacing between signs may need to be adjusted to provide increased reaction time for drivers. In cases where it is determined that the rain is so heavy that the risk is considered unacceptable, all work must cease until rain has cleared. All changes must be noted in the daily diary.

Floods

Should works be affected by flooding to the extent that the worksite becomes impassable, or risk is considered unacceptable, all work must cease immediately, and Traffic Controllers (and other personnel if necessary) must be deployed immediately to close the site and direct traffic around the flooded area (under the direction of the project manager or traffic manager). Emergency services and the Road Authority must be notified immediately, and Traffic Controllers must remain onsite until emergency services and the Road Authority personnel arrive and take control of the site.

Other adverse weather (strong winds, thunder storms, etc.)

In the event of expected adverse weather additional sandbags must be utilised to lessen the chance of signs blowing over. Delineation may be double-based (bollards) or cones double-stacked to add additional stability. Should weather conditions deteriorate or be expected to deteriorate such that the risk is considered unacceptable, all work must cease until weather conditions are safe to procced. All changes must be noted in the daily diary. When using core flute multi-message signs at worksites where the signs will be operating both day and night or the signs will be left unattended, there must be at least two (2) 5 mm thick core flute signs back-to-back in the multi-message frame to help prevent

the sign from blowing out and/ or sliding across (if back-to-back messages are not required the rear set of panels must show the blank/rear plate).

5.1.2 Sun Glare

Where sun glare is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk from glare.

Additionally, in the event that traffic control is adversely affected by glare at sunset and sunrise, traffic controllers may need to assist in maintaining low traffic speeds.

All changes are to be noted in the daily diary.

5.1.3 Fog, Dust and Smoke

Where fog, dust or smoke is identified as adversely affecting a driver's ability to sight signage and / or traffic control devices, sign locations may need to be adjusted and additional delineation and/or traffic control devices provided to address the risk. All changes are to be noted in the daily diary.

Should works be affected by fog, dust, or smoke to the extent that risk is considered unacceptable, all work must cease immediately, and Traffic Controllers (and other personnel if necessary) must be deployed immediately to close the site.

5.1.4 Road Geometry, Terrain, Vegetation and Structures

This TMP takes into account the geometry, terrain, vegetation and structures of the area. Should there be impact to the driver visibility of traffic management devices and personnel on-site, adjustments as necessary may be made with changes recorded in the daily diary. Where the adjustments exceed those given in section 7.3.2 of this TMP, an accredited AWTM person is required to approve the changes prior to work commencing.

5.2 Existing Traffic and Advertising Signs

Any permanent signs that conflict with the temporary signs must be covered or removed from the road user's line of sight.

6. SAFETY PLAN

6.1 Work Health and Safety

All persons and organisations undertaking these works or using the roadwork site have a duty of care under statute and common law to provide a safe workplace for all personnel working at the site, accessing the site or who may be impacted by the construction activity including employees, contractors, subcontractors, visitors to the site and the general public.

This TMP forms part of the overall project Safety Management Plan and provides details on how all road users considered likely to pass through, past, or around the worksite will be safely and efficiently managed for the full duration of the site occupancy and works.

All traffic management works, and control devices must be in accordance with:

- Guide to Temporary Traffic Management (AGTTM) – Austroads.
- Australian Standard AS1742.3; Traffic Control Devices for Works on Roads.
- AS/NZS ISO 31000– Risk Management – Principles and Guidelines.
- AS/NZS 4602– High visibility safety garments.
- Disability Services Act.
- Guide to Preparation of Traffic Management Plans.
- Local Government Act 1995.
- Main Roads Act 1930.
- MRWA Specification 202.
- Work Health and Safety Act 2020 (WA).
- Work Health and Safety (General) Regulations 2022 (WA).
- Road Traffic Act 1974.
- Road Traffic Code 2000.
- Traffic Management for Works on Roads Code of Practice.
- Requirements for the use of Truck Mounted Attenuators in WA – Code of Practice
- Traffic Management Plan Preparation Guidelines.

6.2 Roles and Responsibilities

6.2.1 Responsibilities

The Project Manager has the ultimate responsibility to ensure the TMP is implemented for the prevention of injury and property damage to employees, contractors, sub-contractors, road users and all members of the public.

The Project manager will ensure all site personnel are fully aware of their responsibilities, and that Traffic Controllers are appropriately trained and accredited and that sufficient controllers are available to ensure appropriate breaks are taken.

All personnel engaged in the field activities will follow the correct work practices as required by the CoP, AGTTM and AS1742.3.

All personnel will not commence or continue work until all signs, devices and barricades are in place and operational in accordance with the requirements of the TMP.

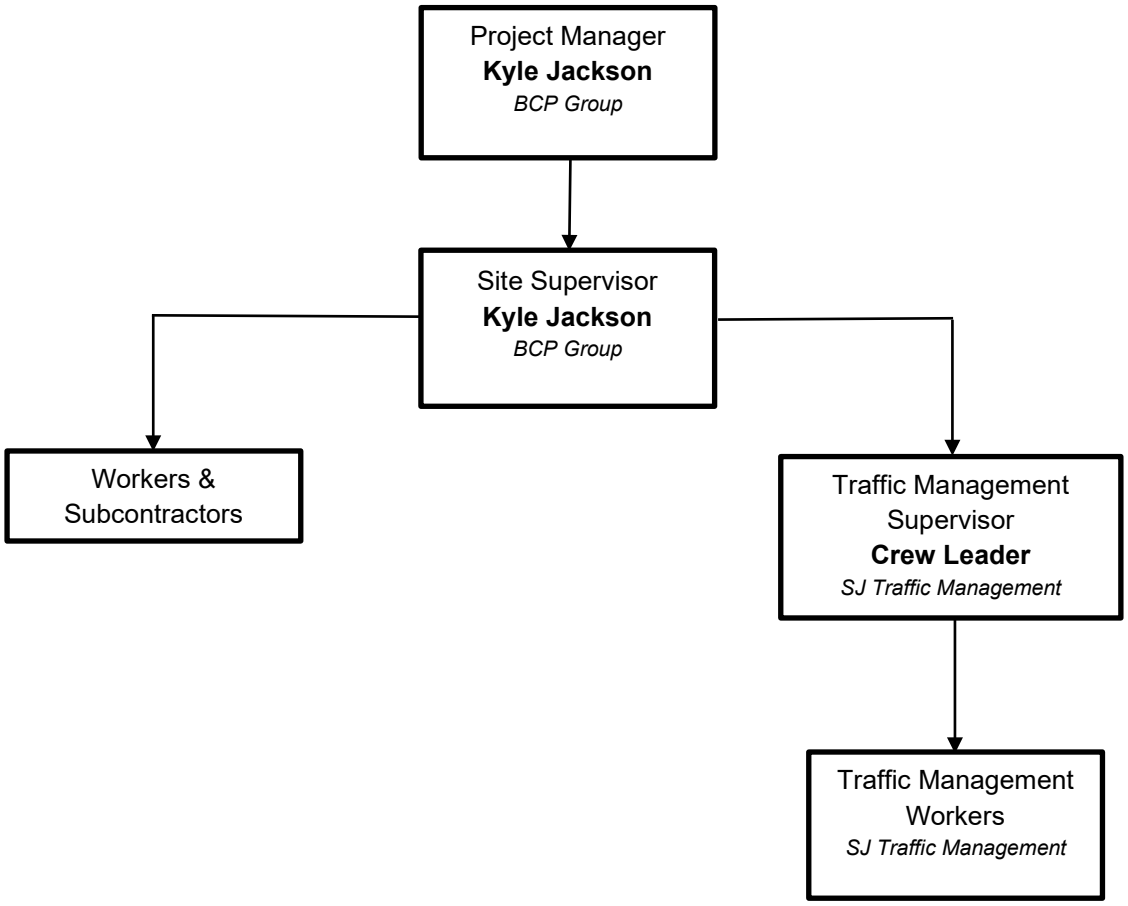
All personnel responsible for temporary traffic management must ensure that the number, type and location of signs, devices and barricades are to a standard not less than Appendix F of this plan, CoP, AGTTM and AS1742.3 (except where specifically detailed in this TMP with reasons for the variations). Should a situation arise that is not covered by this TMP, CoP, AGTTM or AS1742.3, the Road Authority Representative must be notified.

MRWA CoP; Table 26 – Tasks Requiring Main Roads Accreditation

Task	Required Main Roads Accreditation	Austroads role title
On site manual traffic control using a Stop-Slow bat. Operate portable traffic signals systems. Operate portable boom barrier.	Traffic Controller	Traffic Controller
Selection of appropriate generic TGS, within an approved TMP, assess as site suitable and implement. Selection and Implementation of correct approved site specific TGS, required for the stage of works (or event). Monitor and maintain the performance of the implemented TGS. Adjustment of signs and devices within tolerances.	Basic Worksite Traffic Management	Traffic Management Implementer (TMI)
Implement traffic signs and devices from an approved TMP in accordance with AGTTM Part 5 – Short Term Low Impact Works e.g. Worker (symbolic), GRADER AHEAD, ROAD PLANT AHEAD or ROADWORK AHEAD.	Basic Worksite Traffic Management – Non - Practitioner	Traffic Management Implementer –Non-Practitioner (TMI-NP)
Review TMPs prepared by a person holding an AWTM accreditation. Monitoring the effectiveness of, and on-site adjustments to the Traffic Management Plan in accordance with its scope and objectives. This includes adjusting, adding and/or removing signs and devices where the intent/objectives of the TMP and operation of the road network are not adversely impacted. Changes to the TMP/TGS must not involve adding lane or road closures, speed limit changes, or adding any additional regulatory signs that have not been approved (note: WTMs may add repeater signs).	Worksite Traffic Management	Not currently in the Austroads Training Framework, however the WTM accreditation will be retained in WA
Prepare, review, monitor and adjust Traffic Management Plans and Traffic Guidance Scheme.	Advanced Worksite Traffic Management	Traffic Management Designer (TMD)
Review and endorsement of Traffic Management Plans involving 'complex traffic arrangements. Suitability and compliance audits of Traffic Management Plans involving 'complex traffic arrangements', as may be specified for works undertaken for or on behalf of Main Roads. Undertaking 'risk management', and preparation or endorsement of, any Traffic Management Plan proposing to implement a lesser treatment than required by this Code for all works undertaken for or on behalf of Main Roads.	Roadworks Traffic Manager	There is no equivalent in the Austroads framework. RTMs to be retained in WA
The operation of a truck mounted attenuator (TMA) when carrying out traffic management activities.	Operate Truck Mounted Attenuator	TMA operator training is not included.

6.2.2 Roles

The following diagram outlines the responsibility hierarchy of this contact.



Project Manager

The Project Manager must:

- Ensure all traffic control measures of this TMP are placed and maintained in accordance with this plan and the relevant Acts, Codes, Standards and Guidelines.
- Ensure suitable communication and consultation with the affected stakeholders is maintained at all times.
- Ensure inspections of the temporary traffic management are undertaken in accordance with the TMP, and results recorded. Any variations must be detailed together with reasons.
- Review feedback from field inspections, worksite personnel and members of the public, and take action to amend the traffic control measures as appropriate following approval from the Road Authority's Representative.
- Arrange and/or undertake any necessary audits and incident Investigations.

Site Supervisor

The site supervisor is responsible for overseeing the day-to-day activities, and is therefore responsible for the practical application of the TMP, and must:

- Instruct workers on the relevant safety standards, including the correct wearing of high visibility safety vests.
- Ensure traffic control measures are implemented and maintained in accordance with the TMP
- Work with the Traffic Management Supervisor to ensure the correct TGS is selected for the work activity.
- Undertake and submit the required inspection and evaluation reports to management.
- Render assistance to road users and stakeholders when incidences arising out of the works affect the network performance or the safety of road users and workers.
- Take appropriate action to correct unsafe conditions, including any necessary modifications to the TMP.

Traffic Management Supervisor

Traffic management sites involving 'complex traffic arrangements' on Main Roads controlled roads, must have at least one person with either Worksite Traffic Management or Advanced Worksite Traffic Management accreditation on-site at all times when road workers are present.

At least one person accredited in Advanced Worksite Traffic Management must be available to attend the site at short notice at all times to manage variations, contingencies and emergencies, and to take overall responsibility for traffic management. The Traffic Management Supervisor is responsible for the following:

- Work with the Site Supervisor to ensure the correct TGS is selected for the work activity.
- Prior to any implementation activities on site the Traffic Management Supervisor must execute all actions outlined in the Austroads Guide to Temporary Traffic Management Part 6, Field Staff – Implementation and Operations.
- Ensuring the Traffic Management devices are set out in accordance with the Traffic Guidance Schemes, AGTTM and Main Roads Code of Practice.
- Ensure that the quality and quantity of Traffic Management devices matches the relevant Traffic Guidance Scheme, Main Roads Code of Practice and AS 1742.3.
- Have all relevant qualifications, including Worksite Traffic Management for complex Traffic Management arrangements on State Roads.
- Must be on site to manage adjustments, modifications, contingencies and emergencies and take overall responsibility for the implemented Traffic Management setups.
- Where changes are required to complex Traffic Management arrangements, the Traffic Management Supervisor must risk assess those changes and record variations in the Daily Diary. Where an RTM is not consulted, all changes must be within the original scope and objectives of the proposed Traffic Guidance Schemes. All other changes must be endorsed by the RTM and must be authorised by the Road Infrastructure Manager.
- Ensure there is a copy of the approved Traffic Management Plan, including all associated Traffic Guidance Schemes is available on site at all times.

Traffic Management Workers

At least one person on site must be accredited in Basic Worksite Traffic Management and must have the responsibility of ensuring the traffic management devices are set out in accordance with the TMP.

- All traffic management personnel must be accredited in Basic Worksite Traffic Management, and must have the responsibility of ensuring the traffic management devices are set out in accordance with the TMP; and
- At least one person accredited in Advanced Worksite Traffic Management must be available to attend the site at short notice at all times to manage variations, contingencies, and emergencies, and to take overall responsibility for traffic management.

Traffic Controllers

Traffic Controllers must be used to control road users to avoid conflict with plant, workers, traffic and pedestrians, and to stop and direct traffic in emergency situations.

Traffic Controllers must:

- Operate in accordance with AGTTM Part 7: Traffic Controllers.
- Be accredited in Basic Worksite Traffic Management.
- Hold a current Traffic Controller's accreditation.
- Be relieved from their duty after not more than 2 hours for a period of rest or "other duties" of at least 15 minutes as required by AGTTM Part 7.

Staff must never perform tasks where they feel unsafe, at risk or in danger, and if so then staff may refuse to perform tasks and must report the situation to their supervisor at SJ Traffic Management.

Workers and Subcontractors

Workers and Subcontractors must:

- Correctly wear high visibility vests, in addition to other protective equipment required (e.g. footwear, eye protection, helmet sun protection etc.), at all times whilst on the worksite.
- Comply with the requirements of the TMP and ensure no activity is undertaken that will endanger the safety of other workers or the general public.
- Enter and leave the site by approved routes and in accordance with safe work practices.

6.3 Personal Protective Equipment (PPE)

All personnel entering the work site must correctly wear high visibility garments to AS/NZS 4602 High-Visibility Safety Garments for Day/Night use in addition to other protective equipment required on a site-by-site basis at all times whilst on the worksite.

LOCATION	CLOTHING	FOOTWEAR / EYEWEAR	SCOPE
Field	Long Sleeves (buttoned down) & Long pants. High visibility garments meeting AS/NZS 1906 and AS/NZS 4602.	Well maintained and supportive laced up ankle high safety boots with Class 1 Toe Caps as per AS/NZ 2210.3 (lace up is required). Eyewear is mandatory	Includes network. inspections, worksites and site offices.

In addition to the above clothing standards every person must have the following PPE available to them when in the field or at depots and yards for use as required:

- Protective footwear which conforms to AS/NZS 2210.3 Safety, protective and occupational footwear.

- Gloves (to be carried at all times and used for manual handling tasks) which conforms to AS/NZS 2161.2 Occupational protective gloves Part 2: General requirements and test methods.
- Hard hats with wide brim attachment which conforms to AS/NZS 1800:1998 Standard - Occupational protective helmets - Selection, care and use.
- Sun Protection which conforms to AS/NZS 1906.4 High Visibility and retro-reflective materials, AS/NZS 4602.1 High Visibility garments. Part 1 for high-risk applications, and Safe Work Australia's: Guide on exposure to ultraviolet radiation.
- Hearing protection.
- Eye protection which conforms to AS/NZ 1337.1 Personal Eye Protection, Part 1: Eye and face protectors for occupational applications.

If the Safe Work Method Statement (SWMS) or Risk Assessment specifies additional PPE for a project, task, or location then this must become part of the minimum requirements for that situation.

Any project, task or location may have Special Conditions relating to PPE and other safety requirements. These will be specified ahead of time in relevant documentation and are mandatory requirements.

6.4 Plant and Equipment

All plant and equipment at the workplace must meet statutory requirements and have the required registration, licences or certification where required.

All mobile equipment must be fitted with suitable reversing alarms. All mobile plant and vehicles must be fitted with a pair of rotating flashing yellow lamps in accordance with AS1742.3 clause 4.14.1.

All workers will be made aware of the safe work practice at the time of the site induction.

6.5 Trip Hazards

The worksite and its immediate surroundings must be suitably protected and free of hazards, which could result in tripping by cyclists or pedestrians. Hazards, which cannot be removed, must be suitably protected to prevent injury to road users, including those with sight impairment. Where level differences are significant, suitable barriers, which preclude pedestrian access must be used.

Where works extend beyond daylight hours and adjacent lighting is insufficient to illuminate hazards to cyclists or pedestrians, appropriate temporary lighting must be installed. The worksite must be kept tidy to reduce the risk to workers.

7. IMPLEMENTATION

7.1 Traffic Guidance Schemes

The Traffic Guidance Scheme (TGS) outlined in Appendix F and listed below have been provided for the following stages to demonstrate the type of controls that will be implemented throughout the term of the contract. All sign and device requirements are shown on each TGS. Should the use of additional (not shown on the TGS or listing of devices) or reduced number of devices be required due to unforeseen needs, they must be recorded within the Daily Diary as a variation to the TMP, following prior approval.

Construction Stages	Traffic Management Stages	TGS Number and Revision	Details
Stage One	1.0	2724.01	Advanced warning and 60km/h speed reduction.

7.2 Sequence and Staging

Installation and removal are typically carried out applying one of the processes in accordance with AGTTM Part 5 as “short term – low impact works” to protect the TTM staff. The processes described in this section are based on limiting high risk manoeuvrers during installation / removal of the TGS including U-Turns and loops exposing traffic controllers to live traffic without protection.

Fundamental principles that should be complied with to ensure safety during this work activity are that:

- Travel should only be in a forward direction on any road.
- The TTM vehicle may be used as added protection considering the:
    - Availability of safe park up area(s) near the signage placement location.
    - Line of sight to approaching vehicles.
- Availability of safe park up area(s) near the signage placement location.
- Line of sight to approaching vehicles.
- Visibility of the traffic controller and TTM vehicle to approaching vehicles.
- Location of signage/devices on vehicle which need to be accessed.
- Traffic controller access to vehicle (e.g. not through crush zones).
- Available space on road shoulder or median.
- Geometry/terrain of shoulder or median.
- Distance between vehicle and travel path / shoulder drop off.
- Traffic controller proximity to expected travel path while traversing between vehicle and signage location.
- Likely area in which the vehicle may move if impacted.
- Availability of ‘gaps in traffic’ or lookout person.
- Turn around procedures must be conducted in a safe and legal manner.
- Traffic controllers must face the traffic when placing and removing devices.
- All traffic controllers must know their escape route at all times.
- The vehicle mounted warning device must be operating, and the hazard/arrow board used if available.
- All traffic controllers must wear correct PPE.
- A look out person/spotter must be used for all activities where required in accordance with AGTTM Part 5.
- The locations and types of devices are recorded in the diary.
- The TGS is implemented as approved, and a copy is available on site.

The sequence and staging of installation & removal of temporary traffic management are shown below:

Step	Details
Step 1:	Installation of advanced warning signage and 60km/h speed reduction.
Step 2:	Work Activities.
Step 3	Removal of signs and devices to be the opposite of installation.

7.3 Traffic Control Devices

7.3.1 Sign Requirements

All signs used must conform to the designs and dimensions as shown in AS/NZS 1742.3, AGTTM and the CoP.

Prior to installation, all signs and devices must be checked by the Site Supervisor or a suitably qualified person to ensure that they are in good condition and meet the following requirements:

- Mechanical condition - Items that are bent, broken or have surface damage must not be used.
- Cleanliness - Items should be free from accumulated dirt, road grime or other contamination.
- Colour of fluorescent signs - fluorescent signs whose colour has faded to a point where they have lost their daylight impact must be replaced.
- Retro reflectivity: Signs used for night-time or in low light conditions whose retro reflectivity is degraded either from long use or surface damage and does not meet the requirements of AS 1906 must be replaced.
- Battery operated devices - must be checked for lamp operation and battery condition.

Where signs do not conform either to the requirements of AS 1742.3 or would fail to pass any of the above checks, they must be replaced on notice.

Signs and devices must be positioned and erected in accordance with the locations and spacing's shown on the drawings. All signs must be positioned and erected such that:

- They are properly displayed and securely mounted.
- They are within the driver's line of sight.
- They cannot be obscured from view.
- They do not obscure other devices from the driver's line of sight.
- They do not become a possible hazard to workers or vehicles; and
- They do not deflect traffic into an undesirable path.

Signs and devices that are erected before they are required must be covered by a suitable opaque material. The cover must be removed immediately prior to the commencement of work.

Where there is a potential for conflict of information between existing signage and temporary signage erected for the purpose of traffic control, the existing signs must be covered. The material covering the sign must ensure that the sign cannot be seen under all conditions i.e., day, night, and wet weather. Care will be taken to ensure existing signs are not damaged by the covering material or by adhesive tape.

7.3.1.1 Securing Signs and Devices

AS 1742.3 requires that signs and devices must be positioned and erected so that they are properly displayed and securely mounted. This requirement applies irrespective of the length of time that the sign is displayed, where the sign is located or the environmental conditions.

Factors that influence the risk of fallen signs are:

- Wind force; travel speeds; sign offset from the edge line; the presence of road trains and expected weather conditions,
- Slope of ground; with steeper batters increasing the risk,
- Duration that the sign is place; longer duration increases risk.

At locations where signs are not mounted on permanent posts the signs must be securely mounted. Where workers are not available to immediately identify and rectify fallen signs, the securing of signs must include one of the following methods:

- Sandbags (or similar) on all 4 legs (total weight of at least 40 kg)
- Affixing to other suitable permanent roadside infrastructure.
- Semi-permanent mounting of permanent posts (in accordance with manufacturers specifications) e.g. Oz Spike or similar.

MRWA CoP; Table 5 – Minimum sandbags to secure signs

Permanent Speed Limit	Clearance of sign to travel path	Minimum number of 10kg sandbags
90-110km/h	1m or less	4
	More than 1m	2
70-80km/h	1m or less	3
	More than 1m	2
60km/h	Any	2

Irrespective of the speed environment, the following options must also be considered, to further mitigate the risk if signs do fall over:

- Regular monitoring and maintenance in place to rectify fallen signs.
- Use of Portable Variable Message Signs in advance of the work site.

If a sign has fallen over, measures must be taken to stop this from reoccurring. This may include weighing down the legs, safely fastening the device to suitable objects or post mounting the sign.

7.3.2 Tolerances on positioning of signs and devices

Where a specific distance for the longitudinal positioning of signs or devices with respect to other items or features is stated, for the spacing of delineating devices or for the length of tapers or markings, the following tolerances may be applied:

(a) Positioning of signs, length of tapers or markings:
(i) Minimum, 10% less than the distances or lengths given.
(ii) Maximum, 25% or 15m more than the distance given (whichever is greater).
(b) Spacing of delineating devices:
(i) Maximum, 10% more than the spacing shown.
(ii) No minimum.
These tolerances must not apply where a distance, length or spacing is already stated as a maximum, a minimum or a range.

7.3.3 Flashing Arrow Signs

Flashing arrow signs are not required for these works.

7.3.4 Delineation and Edge Clearance

Traffic Cones must be at least 700mm high, fluorescent orange and fitted with Class 1 retro-reflective tape. Alternatively, fluorescent red bollards with Class 1 retro-reflective tape may be used. The base of the cones and bollards must be designed to be stable under reasonably expected wind conditions and air turbulence from passing traffic.

The Supervisor will inspect cones at intervals necessary to ensure any miss-alignment or displacement is identified and corrected prior to this causing disruption to traffic.

The clearance between delineation and the edge of the nearest traffic lane should be as shown in the AGTTM Part 3 Table 5.2. Delineation must remain in place, upright and effective for the duration of the works and should not have to be attended to regularly. Where being regularly dislodged (e.g. due to passage of heavy vehicles) these offsets may need to be increased.

AGTTM Part 3; Table 5.2: 'Past' edge clearance

Speed (km/h)	Distance (m)
For traffic cones, bollards, longitudinal channelising barricades or any other delineation device	
≤ 65	0.3*
≥ 66	0.5
For post-mounted reflectors, temporary hazard markers	
All Speeds	1
For kerbed edges of traffic lanes	
All Speeds	0.3 - 0.5 (behind the face of kerb)

*Use this distance when delineating the path. If devices are being used to reduce speeds, as with traffic cones, the offset distance can be reduced to 0 m.

7.3.4.1 Recommended Delineation Spacings

Works does not have any delineation as works only involves advanced warning and a 60km/h speed reduction and no workers on foot.

7.3.4.2 Recommended Taper Spacings

Tapers are not required for these works.

7.3.5 Variable Message Sign

Variable Message signs are not required for these works.

7.3.6 Roadworks Pilot Vehicle

Roadworks pilot vehicles are not required for these works.

7.4 Site Access for Work Vehicles

The works only includes a speed reduction. No work area is required for the design of the TMP.

7.5 Communicating TMP Requirements

The requirements of the TMP will be communicated to relevant personnel at Daily/Shift Prestart meetings and/or site induction program (as applicable).

7.5.1 Onsite Two-Way Communications

There are many channels that have been established by law for two-way communication purposes including the Emergency channel 5 & 35 and the data transmission channels 22 and 23.

Certain channels are used as repeater stations and must not be used for general conversation these are 1-8 and 31-38, 41-48, 61- 63, 71- 78.

The supervisor / project manager can select an appropriate channel for communication purposes from channel 9, 12-21, 24-28, 39-40, 49-60, 64-70,79-80 inclusive.

8. EMERGENCY ARRANGEMENTS AND CONTINGENCIES

8.1 Traffic Incident Procedures

In the event of an incident or accident, whether or not involving workers, traffic or road users, all work must cease, and traffic must be stopped as necessary to avoid further deterioration of the situation. First Aid must be administered as necessary, and medical assistance must be called for if required. For life threatening injuries an ambulance must be called on telephone number 000. The Police must also be called on 000 for traffic crashes where life threatening injuries are apparent.
Any traffic crash resulting in non-life-threatening injury must immediately be reported to the WA Police Service on 131 444.
Broken down vehicles and vehicles involved in minor non-injury crashes must be temporarily moved to the verge as soon as possible after details of the crash locations have been gathered and noted. Where necessary to maintain traffic flow, vehicles must be temporarily moved into the closed section of the work area behind the cones, providing there is no risk to vehicles and their occupants or workers.
Suitable recovery systems must be used to facilitate prompt removal of broken down or crashed vehicles. Assistance must be rendered to ensure the impact of the incident on the network is minimised.
Details of all incidents and accidents must be reported to the Traffic Supervisor/Crew Leader and Project Manager immediately and subsequently using the incident report form at Appendix C (or similar).

Ensure that the following information is recorded:

- Location, Time, and Date of accident.
- Weather conditions.
- Condition of the travelled path (e.g., lane width and surface condition).
- Details of the accident, including any injuries and vehicle (s) involved.
- Details of emergency services called to the accident.
- Details of type, size and location of signs and devices in use at the time of the accident.
- Details of any traffic management devices damaged as a result of the accident; and
- Details of any witnesses to the accident.

Road plant within the work area that may impact on any services requiring access to a crash site will be cleared from the area quickly as necessary.

8.1.1 Serious Injury or Fatality

In the case of serious injury or fatality occurring within the traffic management site all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area.

An Ambulance and Police must be called on telephone number 000 where life threatening injuries are apparent.

All road workers and traffic management personnel must preserve the scene leaving everything in situ, until Police or WorkSafe gives direction.

DEPT / AGENCY	PHONE
Police	000
WorkSafe WA	1800 678 198

Guidance for Emergency and Unplanned Works is provided in AGTTM 10: Section 5 Emergency Works.

These procedures can be applied in case of a fatality or serious injury at a worksite. However, preserving evidence takes precedence over traffic access. Therefore, additional lane closures or complete road closures may need to be applied to achieve this.

8.1.2 Minor Incident or Vehicle Break Down within Site

Broken-down vehicles and vehicles involved in minor non-injury crashes must be temporarily moved to the verge as soon as possible after details of the crash locations have been gathered and noted.

Where necessary to maintain traffic flow, vehicles must be temporarily moved into the closed section of the work area behind the cones, providing there is no risk to vehicles and their occupants or workers. Suitable recovery systems must be used to facilitate prompt removal of broken down or crashed vehicles. Assistance must be rendered to ensure the impact of the incident on the network is minimised.

Any traffic crash resulting in non-life-threatening injury must be reported to the WA Police Service on 131 444.

Details of all incidents and accidents must be reported to the Site Supervisor and Project Manager using the incident report form at Appendix C (or similar).

8.2 Emergency Services

Emergency services must be notified of the proposed works nature, location, date, and times as well as contact details for the site supervisor.

On-site traffic controllers will be equipped with mobile communications to advise and/or liaise with emergency services to ensure a prompt response should the need arise.

8.3 Dangerous Goods

Should any incident arise involving vehicles transporting dangerous goods, all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area.

Emergency services must be notified of the proposed works nature, location, date, and times as well as contact details for the site supervisor. All site personnel must be briefed on evacuation and control procedures.

8.4 Damage to Services

In the event that gas services are damaged, all work must cease immediately, machinery and vehicles turned off and the area cleared of personnel as soon as possible. Traffic Controllers (and other personnel if necessary) must be deployed immediately to ensure no traffic or other road users approach the area.

The Police Service and relevant supply authority must be called immediately.

Damage to any other services must be treated in a similar manner except machinery may remain operational and access may be maintained where it is safe to do so.

All site personnel must be briefed on evacuation and control procedures.

8.5 Failure of Services

8.5.1 Failure of Traffic Signals

There are no existing traffic signals in the area of works.

In the event that traffic signal infrastructure near the worksite is damaged or fails to operate correctly, all work must cease immediately, and Main Roads WA Road Network Operation Centre (RNOC) must be notified immediately (phone 138 111).

8.5.2 Failure of Street Lighting

Day works only; street lighting will not affect the works.

8.5.3 Failure of Power

In the event that power infrastructure is damaged and poses a risk through live current, Traffic Controllers (and other personnel if necessary) must be deployed immediately to secure the site and prevent entry to the area affected by live power. Western Power must be notified immediately (phone 13 13 51).

8.6 Emergency Contacts

Before the commencement of works all works personnel are to be briefed during the prestart induction on the need to provide emergency services access if required and the evacuation procedures should an incident occur.

Prior to setup each day at the prestart meeting workers is to discuss what actions will be taken in the case of an emergency event and nominate an appropriate muster point.

Emergency services must at all times have continual access to all properties and the Work site.

At all times when on site workers and subcontractors will take the necessary actions that are practicable to assist emergency vehicles and/or service vehicles entering and/or traveling through to worksite.

The Project Manager must notify all emergency services of the works before commencement. The Notification of Roadworks Form can be found in Appendix A.

Emergency Service	E-mail/Website	Phone (Emergency)
WA Police Service	State.Traffic.Intelligence.Planning.&.Co-ordination.Unit@police.wa.gov.au	000
St. John Ambulance	Operations_soc@stjohnwa.com.au	000
DFES	www.dfes.wa.gov.au/contactus/pages/dfesoffices.aspx	000
Power	http://www.westernpower.com.au/customerservice/contactus/	13 13 51
Gas	enquiries@atcogas.com.au	13 13 52

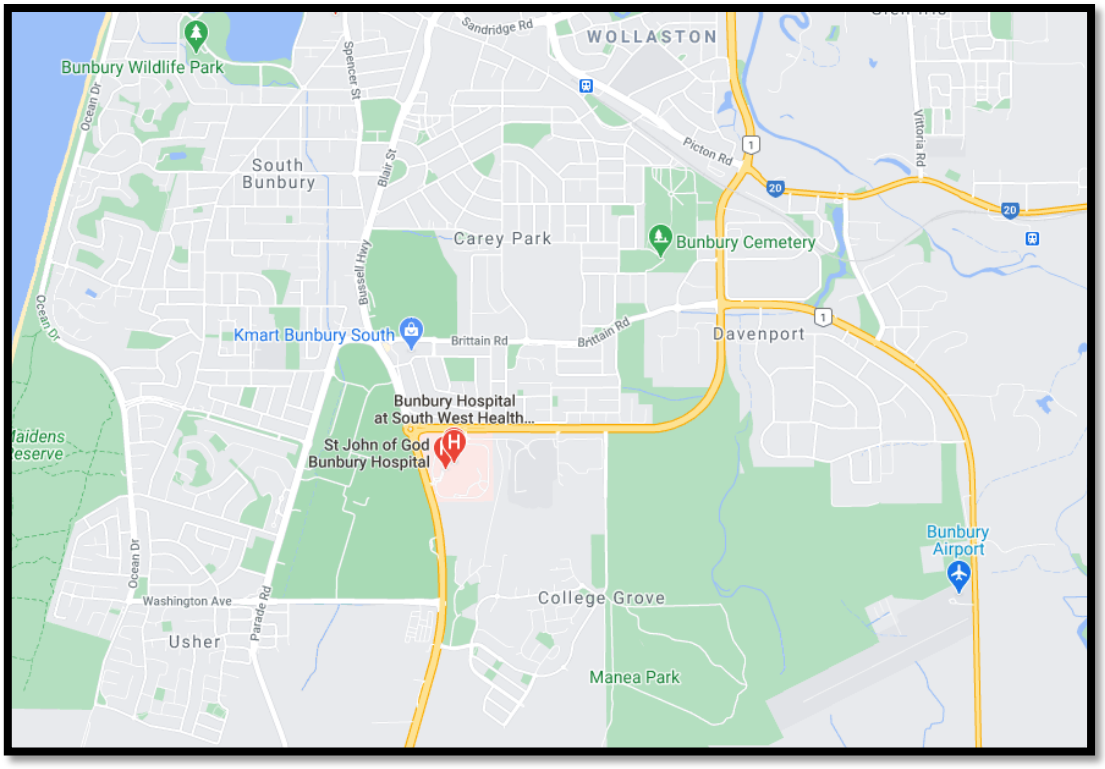
8.6.1 Local Emergency Service Contact Details:

DEPT / AGENCY	Phone
Bunbury Fire Station	9796 3422
St John Ambulance - Bunbury	9791 4999
Bunbury State Emergency Service	13 25 00

8.6.2 Nearest Medical Assistance:

The nearest medical assistance is located at the Bunbury Hospital.
This can be found on Bussell Highway (cnr Robertson Drive) Bunbury WA 6230
(see map below)

Contact Phone Number: (08) 9722 1000



9. MONITORING AND MEASUREMENT

9.1 Daily Inspections

Prior to works commencing the Site Supervisor must communicate the Traffic Management Plan to all key stakeholders and affected parties.

On completion of setting out the traffic control measures; the site is to be monitored for a suitable period of time. If traffic speeds on the approaches to the work site are assessed as being above the temporary posted speed zone for the work site, the Site Supervisor is to initiate action to modify the approach signage and tapers in accordance with the requirements of AGTTM/CoP. All such actions are to be recorded in the Daily Diary. Should road users be observed to continue to travel in excess of the posted speed limit, the police may be requested to attend the site to enforce the temporary posted speed limit.

The Advanced Worksite Traffic Management accredited supervisory person at the worksite may conditionally approve changes made to a complex traffic management plan subject to review and endorsement of the change by an RTM as soon as practicably possible.

The Traffic Management Contractor must ensure that all temporary signs, devices and controls are maintained at all times. To achieve this, procedures in line with the requirements outlined in AGTTM Part 6 will be instituted. The monitoring program must incorporate inspections:

- Before the start of work activities on site,
- During the hours of work,
- Closing down at the end of the shift period, and
- After hours.

A daily record of the inspections must be kept indicating:

- When traffic controls where erected,
- When changes to controls occurred and why the changes were undertaken,
- Any significant incidents or observations associated with the traffic controls and their impacts on road users or adjacent properties.

The Traffic Management Contractor must ensure that personnel are assigned to monitor the traffic control scheme. Inspections must at least satisfy the following requirements.

9.1.1 Before works start

- Confirm TMP and TGS are suitable for the day's activities.
- Inspect all signs and devices to ensure they are undamaged, clean and comply with the requirements depicted on the TGS.
- All lamps should be checked and cleaned, as necessary.
- After any adjustments have been made to the signs and devices, conduct a drive through inspection to confirm effectiveness.

9.1.2 During work hours

- Designate and ensure that appropriate work personnel drive through the site every 2 hours or less if required, to inspect all signs and devices and ensure they are undamaged and comply with the requirements depicted on the Traffic Guidance Schemes.
- Attend to minor problems as they occur.
- Conduct on the spot maintenance/repairs as required.
- When traffic controllers are on the job, ensure they remain in place at all times. Relieve controllers every 2 hours or sooner if required to ensure attentiveness is retained.
- During breaks or changes in work activities remove or cover any signs that do not apply (e.g., PREPARE TO STOP, Workers symbolic).
- Re-position signs and devices as required by work processes throughout the day and keep records of any changes.

9.1.3 Closing down each day

- Conduct a pre-close down inspection, allowing time for any appropriate maintenance works.
- Remove any unnecessary signage (e.g., Prepare to Stop, Symbolic Workers).
- Replace any unnecessary signage with appropriate delineation.
- Drive through site and confirm all signs and devices are operating correctly with no misleading visual cues.
- Record details of inspection and any changes made to layout.

9.1.4 After hours

After hours traffic management is not catered for in this TMP.

9.2 TMP Audits and Inspections

Suitability Check inspection must be carried out on a regular basis by a suitably competent person.

This inspection should be carried out from within the traffic stream at the normal traffic speed taking in all the signs and devices.

A Suitability Check inspection must be carried out after any change is made to the arrangement. All inspections must be noted on the daily diary.

9.3 Records

A daily diary recording all inspections including variations to the approved TMP must be kept using the Daily Diary.

The Traffic Supervisor is to record all inspections made on a daily basis and at those times prescribed by the Traffic Management Implementation Standards. Upon completion of each day the Traffic Supervisor must provide copies of the daily diary record to the Project Manager.

The Traffic Supervisor is to record all variations made to the approved Traffic Management Plan on a daily basis and clearly indicate the nature of the variations and the reason for the variations. Upon completion of each day the Traffic Supervisor must provide copies of the variation record to the Project Manager.

9.4 Public Feedback

BCP will implement a procedure that ensures comments and complaints received from the public are recorded and managed.

10. MANAGEMENT REVIEW AND APPROVALS

10.1 TMP Review and Improvement

A review of the effectiveness of the TMP will be undertaken by the Project Manager as part of the close-out procedure.

10.2 Variations

There are no departures from AGTTM or MRWA Traffic Management requirements for the Works on Roads Code of Practice.

Where the TMP needs amending, e.g. due to a change in the scope of works or safety concerns, a modified TMP will be submitted for approval to the Road Authority.

Minor on-site adjustments or modifications, if required, must only be made following approval and recorded in the daily diary and SWMS. In emergency situations, on-site adjustments or modifications must be made and recorded in the daily diary and SWMS, and the Project Manager notified as soon as practicable

10.3 Approvals, Authorisations and Permits

- **Road Authority**
  Approvals for implementing this TMP must be in accordance with the Shire of Capel.
- **Service Providers**
  No services are to be affected and as such no approvals are necessary.
- **Environmental Protection Agency**
  Not Applicable.
- **Department of Parks and Wildlife**
  Not Applicable.

APPENDIX A – Notification of Roadworks

(NOTIFICATION OF ROAD WORKS NOT APPLICABLE FOR THESE WORKS)

APPENDIX B – Variation to Standards

(VARIATION TO STANDARDS NOT APPLICABLE FOR THESE WORKS)

APPENDIX C – Record Forms

Traffic Management Daily Diary (Dec 2024)

Location: _____ **Client:** _____ **Date:** _____

TMP No: _____ **TGS No:** _____ **Weather Conditions:** _____ **Diary Sheet:** _____ **of** _____

Start Time at Depot: _____ **Time Arrive Onsite:** _____ **Commencement of Site Setup:** _____ **Site Setup and Operational:** _____

Site Pulled Down at: _____ **Time Aftercare signs setup:** _____ **TGS No:** _____ **Time left site:** _____ **Finish time at Depot:** _____

☐ **Day Works** ☐ **Night Works** ☐ **Emergency Response** **Site Setup as per TGS** ☐ **Yes** ☐ **No (if not comment on next page)**

☐ **Attendance at Pre-Start Meeting** **Did an incident occur (if yes complete incident report form)** ☐ **Yes** ☐ **No**

I confirm that the above times of 'setup' and 'pulldown' of traffic management signs and devices are a true and correct record

Name (Site Supervisor): _____ Signed: _____

Drive Through Checks (Checks must be conducted at least every 2 hours)

Time of check entered. Rule off and leave blank if the check does not apply to the site. Make a note of any issues on the next page.

Traffic Management Site Checks	1	2	3	4	5	6	7	8	9	10
Time										
Drive Through Video Recording conducted as per Main Roads Requirements										
Are signs upright, clean, visible, level & stable										
Are taper lengths correct										
Are speed limit signs correct and doubled up										
Are sign spacings correct										
Are cone/bollard alignments straight & spaced correctly										
Are devices operating correctly										
Are pedestrians, cyclists and other vulnerable road users catered for										
Are lane widths adequate										
Are vehicle queue lengths acceptable										

Is road surface condition adequate										
Is the work area clearly defined?										
Are the travel paths for both directions of traffic clearly defined? Is the work area appropriately separated from passing traffic? Check the transition at the interface of the modified alignment.										
Are centre lines/lane lines/edge lines clear and unambiguous?										
Are sight and stopping distances adequate at works, at intersections and driveways?										
Are traffic lanes clearly delineated?										
Are lighting for night-time controls operating correcting?										
Have other risks associated with traffic management at night been catered for, e.g. placement of lighting towers										

No. of TTM Vehicles Onsite: _____ **No. of TTM Personnel Onsite:** _____

TTM Personnel Names & Accreditations:

	Accreditation Details (tick)					**Time of Break from Stop/Slow** (Traffic controllers must have a 15 minute break every two hours of constant stop/slow operation)							
Name	**TC**	**BWTM**	**WTM**	**AWTM**	**OTMA**	On	Off	On	Off	On	Off	On	Off
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:
						:	:	:	:	:	:	:	:

Additional Comments _____

I confirm that the details contained herein are true and correct

Name: (TTM Leader): _____ Signed: _____

Incident Report Form

SECTION 1			
EMPLOYEE TO COMPLETE SECTION 1 & 2 AND SUBMIT WITHIN 24 HOURS			
Incident report completed by		**Incident completion date**	

INCIDENT TYPE

- ☐ *Near Miss (NM): A dangerous incident that could have caused an injury/illness but fortunately didn't.*
- ☐ *First Aid Injury/Illness (FAI): An injury or illness that only requires first aid.*
- ☐ *Medically Treated Injury/Illness (MTI): An injury or illness that requires treatment from a medical practitioner with no work restrictions.*
- ☐ *Restricted Duties Injury/Illness (RDI): An injury or illness that requires restricted work duties.*
- ☐ *Lost Time Injury/Illness (LTI): An injury or illness that requires days away from work certified by a Medical Practitioner.*
- ☐ *Permanent Disability (PD): A permanent, incurable injury or illness disability.*
- ☐ *Fatality (Fat): A loss of life.*
- ☐ *Environmental Spill (ES): Spill of a chemical that is hazardous to the environment*
- ☐ *Environmental Damage (ED): Damage to the environment*
- ☐ *Asset Damage (AD): Damage to assets where no personnel or the environment were harmed.*

Note: all incidents involving any injury, or damage greater than $5,000 require a witness statement.

Date of incident		**Time of incident**	
Initially reported to		**Date & time initially reported**	
Name of witness/es			
Site Supervisor		**Crew Leader**	
Days since last break *Last full day off.*		**Hours since last break** *TC break, meal break or start of shift.*	
Person(s) involved		**Persons role / occupation**	
Plant / equipment involved		**Reported to Police (Y/N)** *If so, note report number.*	
Location		**SLK**	
State the event details -			
What immediate actions were taken –			
Why do you think this incident happened?			
What actions do you recommend so this does not happen again?			
Sign to confirm this is a true and correct statement of the incident			

SECTION 2

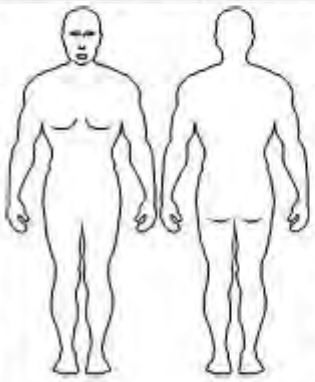
Please complete diagram to depict incident (as required).

North

INJURY DETAILS

Injuries N/A

Name of injured worker/s:

Injury classification / Mechanism		Injury nature		Part (or parts) of body injured	
	Fall from height		Fracture		Eye
	Fall on same level (trip/slip)		Dislocation		Ear
	Hitting object with body		Sprain / strain		Face
	Excessive mechanical vibration		Intracranial / concussion		Head
	Exposure to sound		Internal injury		Neck
	Repetitive movement		Amputation		Back
	Other muscle stress		Open wound		Trunk (not internal)
	Contact with electricity		Superficial injury		Shoulders / arms
	Exposure to hot / cold		Contusion / crush		Hands / fingers
	Exposure to chemicals		Foreign body		Hips / legs
	Sting & / or bites		Burn		Feet / toes
	Mental stress		Poisoning		Internal organs
	Slide / cave in		Weather exposure		Multiple locations
	Vehicle accident		Multiple	Mark Injury location/s on Diagram	General
	Multiple injuries		Other:		Unspecified

First aid treatment given		**First aid officer name**	
First aid kit stock used			
Name & location of doctor		**Name & suburb of hospital**	

SECTION 2 (OPTIONAL NOTES BY REPORTER)

SECTION 3

TO BE COMPLETED BY HSEQ OR INVESTIGATING MANAGER

Regulator notification required?		If yes, date reported?	

	Regulator
Management call Worksafe for a workplace related death, serious injury or illness, or immediately life-threatening dangerous incident. **These must be reported to WorkSafe immediately after becoming aware of the incident.** **Urgent medical assistance where required should be sought prior to contacting WorkSafe.** **After phoning through the report, notify online.** **Non-life-threatening injuries, illnesses and dangerous incidents should be reported online.** **There is a duty to preserve the scene so far as reasonably practicable.**	*WorkSafe WA*
Types of serious Incident/Injury/Illness Treatment/Dangerous Incidents that are notifiable include: 1. **Immediate treatment as an in-patient in a hospital** excluding outpatient/Emergency Department attendances if not admitted and admission for corrective surgery which does not immediately follow the injury. 2. **Immediate treatment for amputation of any part of the body.** 3. **Immediate treatment for a serious head injury including** fractured skull, loss of consciousness, blood clot or bleeding in the brain, damage to the skull to the extent that it is likely to affect organ/face function, Head injuries resulting in temporary or permanent amnesia. 4. **Immediate treatment for a serious eye injury** it does not include eye exposure to a substance that merely causes irritation. 5. **Immediate treatment for a serious burn** it does not include a burn that merely requires washing the wound and applying a dressing. 6. **Immediate treatment for the separation of skin from an underlying tissue (such as de-gloving or scalping).** 7. **Immediate treatment for a spinal injury** does not include acute back strain. 8. **Immediate treatment for the loss of a bodily function** including loss of consciousness, loss of movement of a limb or loss of the sense of smell, taste, sight or hearing, or loss of function of an internal organ. 9. **Immediate treatment for serious lacerations.** 10. **Medical treatment within 48 hours of exposure to a substance in the workplace.** 11. **Injury or illness that a medical practitioner considers likely to prevent the person from being able to do their normal work for at least 10 days.** 12. **Infectious diseases:** tuberculosis, viral hepatitis, Legionnaires' disease and HIV, where these diseases are contracted during work involving exposure to human blood products, body secretions, excretions or other material which may be a source of infection. 13. **PCBU's in general, petroleum and geothermal energy industries must notify WorkSafe when it is confirmed that a person has contracted COVID-19 through carrying out work and:** • the person dies; or • the person is required to have treatment as an in-patient in a hospital; or • the person contracted COVID-19 while carrying out work that involves providing treatment or care to a person; or involves contact with human blood or body substances. In this case, the carrying out of work. 14. **The regulator must be notified of any incident in relation to a workplace that exposes any person to a serious risk** resulting from an immediate or imminent exposure to: a. an uncontrolled escape, spillage or leakage of a substance b. an uncontrolled implosion, explosion or fire c. an uncontrolled escape of gas or steam d. an uncontrolled escape of a pressurised substance e. electric shock: i. excluding shock due to static electricity, 'extra low voltage' shock (i.e. arising from electrical equipment less than or equal to 50V AC and less than or equal to 120V DC), defibrillators are used deliberately to shock a person for first aid or medical reasons ii. notifiable electric shocks include minor shock resulting from direct contact with exposed live electrical parts (other than 'extra low voltage') including shock from capacitive discharge f. the fall or release from a height of any plant, substance or thing g. the collapse, overturning, failure or malfunction of, or damage to, any plant that is required h. to be design or item registered under the WHS regulations, for example a collapsing crane i. the collapse or partial collapse of a structure j. the collapse or failure of an excavation or of any shoring supporting an excavation k. the inrush of water, mud or gas in workings, in an underground excavation or tunnel, or l. the interruption of the main system of ventilation in an underground excavation or tunnel. 15. **Hazardous materials emissions and major pollution incidents.**	*Department of Water and Environmental Regulation*

Investigation Required?	

An investigation should be initiated for the following incidents:

- *Restricted duties injury*
- *Lost time injury*
- *Permanent disability*
- *Fatality*
- *Repeat of a previous incident*
- *Any incident deemed necessary at management's discretion*

SECTION 4				
POTENTIAL INCIDENT CAUSE (FACTORS TO BE CONSIDERED)				
Organization Factors		Lack of or insufficient procedure		Contract management
		Design		Lack of / poor maintenance
		Training &competencies		Incorrect / unavailability of tools
		Change management		Personnel selection
Site Factors		Site conditions (bad weather)		Time Pressure
		Fitness for work		Job complexity
		Access		Plant / equipment failure
		Workload		Task planning
Personnel Factors		Human error		Procedures not followed
		Communication breakdown		Lack of / no supervision
Control Failures		No / insufficient isolation		Failure or lack of sufficient controls
		No / insufficient guarding		SWMS not followed / not sufficient

ROOT CAUSE ANALYSIS (CAUSE OF FAILURE) - 5 WHY'S	
Why 1 - Why did the incident happen? What caused it to happen?	
Why 2 - Why did the above happen? What caused it to happen?	
Why 3 - Why did the above happen? What caused it to happen?	
Why 4 - Why did the above happen? What caused it to happen?	
Why 5 - Why did the above happen? What caused it to happen?	
TIMELINE OF EVENTS	

SECTION 4

INCIDENT INVESTIGATION RECORD

Note: May include details of discussions with persons involved in the incident, references to additional files or images, etc.

Date		**Time**	
Name & Role		**Signature**	

CORRECTIVE ACTIONS (MUST ADDRESS ROOT CAUSE)

CORRECTIVE ACTION	HIERARCHY OF CONTROL *Eliminate, Substitute, Isolate, Engineering, Administration, PPE*	RESPONSIBLE PERSON	DUE DATE	CONTINUOUS IMPROVEMENT REGISTER #

CORRECTIVE ACTION CLOSE OUT

Is the action taken effective?		**YES** Complete the below & return to HSEQ Coordinator.		**NO** Refer to HSEQ Coordinator for assistance in addressing root cause.	
Reasons /comments:					
Close out complete/ accepted	**Name:**		**Position:**		
	Sign:		**Date:**		

APPENDIX D – Traffic Analysis and Volume Counts

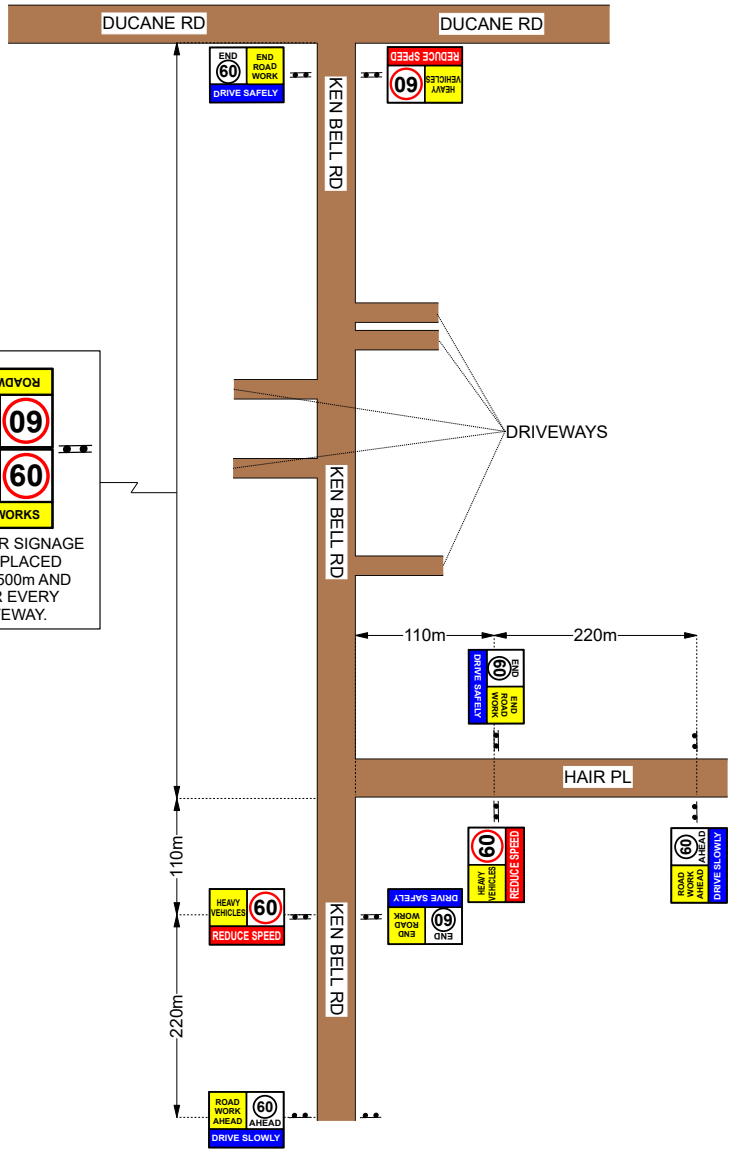
(TRAFFIC DATA WAS UNAVAILABLE AT THE TIME OF PLANNING)

APPENDIX E – Roadway Access Authorisation Permit

APPENDIX F – Traffic Guidance Scheme

HEAVY VEHICLES CORFLUTE MAY BE SWAPPED WITH THE FOLLOWING

IMPLEMENTATION: 06:00 - 18:00



REPEATER SIGNAGE TO BE PLACED EVERY 500m AND AFTER EVERY DRIVEWAY.

Signs and Devices List

x4	ROAD WORK AHEAD 60 AHEAD DRIVE SLOWLY	x6	DRIVE SAFELY END 60 END ROAD WORK HEAVY VEHICLES 60 REDUCE SPEED	x6	ROADWORKS 09 HEAVY VEHICLES HEAVY VEHICLES 60 ROADWORKS
x32					

SJ TRAFFIC MANAGEMENT

Date: 18/07/25 **Designed By:** Beau Bridges AUS-AWTM-24-11110-01
Date: 18/07/25 **Reviewed By:** Jarryd De Strang (AUS-AWTM-23-10025-01)
Client: BCP
Works: Truck Haulage Route
Location: Ken Bell Rd (2060068), North Boyanup
Title: Advanced warning signage and a speed reduction to 60km/h.

Signed: BHBridges
Signed:

TGS: 2724.01
Revision: REV-0
Posted Speed: Derestricted
Temporary Speed: 60km/h

Disclaimer:
This Traffic Guidance Scheme has been designed from the information obtained during the site visit. Any variation to the Traffic Guidance Scheme should be done by a suitably qualified person as outlined in Table 26 of the Main Roads Code of Practice for Works on Roads. All variations should be noted in the Traffic Controllers daily diary.

NOT TO SCALE

NOTES:
1. All sign locations are to be checked prior to setout and positions adjusted to allow for specific site constraints such as vegetation, other signs, roadside furniture and sufficient space on shoulders.
2. The positioning of signs, lengths of tapers or markings shall be:
   a) Minimum 10% less than the distances given.
   b) Maximum 25% or 15m, whichever is greater than the distances given.
3. This traffic guidance scheme shall be read in conjunction with the traffic management plan, AS1742.3 and Main Roads WA Traffic Management for Works on Roads Code of Practice.
4. - Edge Clearance - 0.3m.

APPENDIX G – RTM Report

(RTM REPORT NOT APPLICABLE FOR THESE WORKS)

APPENDIX H – Miscellaneous

LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- Underground Electricity (BYDA)
- Overhead Electricity (BYDA)
- Telecommunications (BYDA)
- Stage Boundary (approx 2ha)
- Topsoil Stockpile Area (approx 500m²)
- Driveway (Unsealed)
- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
153
HAIR PLACE
20
142.2
583.4
122.6
20
Datum Point
Buried Star Iron
Picket RL 22.74
256
3m Bund Height for Stage 1
1
2ha
3m Bund Height for Stage 15
15
2ha
2.5m Bund Height for Stage 2
2
1.91ha
3m Bund Height for Stage 14
14
2ha
1
46.3995ha
3
2ha
Existing Central Pivot Infrastructure to be retained
2
210.3
140
20
864.6
13
2ha
4
2ha
1006.9
20
Existing Farm Shed to be retained
3m Bund Height for Stages 12 and 13
12
2ha
5
2ha
11
2ha
6
2ha
10
2ha
7
2ha
3.5m Bund Height for Stage 7
9
2ha
8
2ha
3.5m Bund Height for Stages 8,9 and 10
460.7
ROAD
20
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

element.
Level 18, 191 St Georges Terrace, Perth Western Australia 6000.
PO Box 7375 Cloisters Square, Perth Western Australia 6850.
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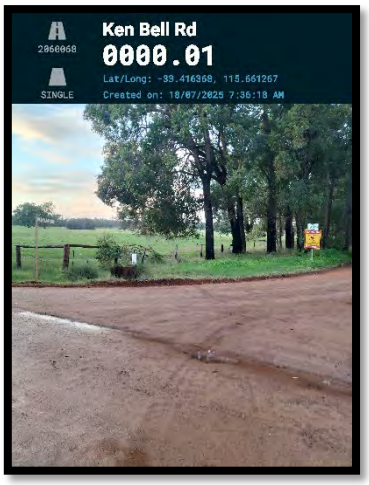
APPENDIX I – Site Photos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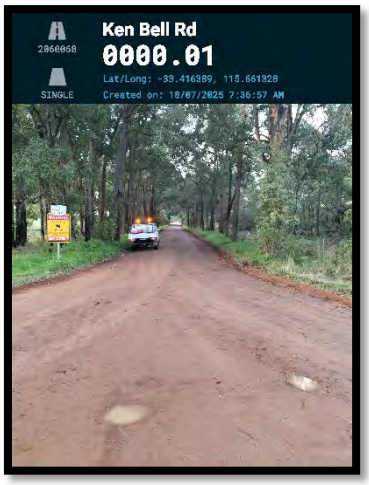
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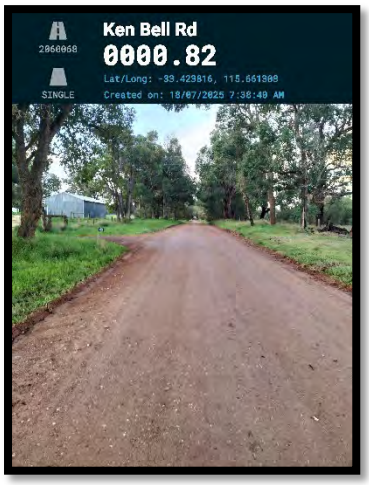
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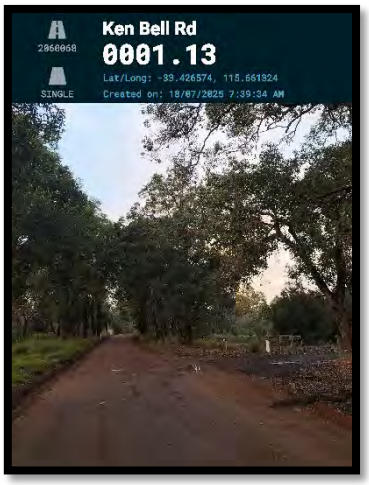
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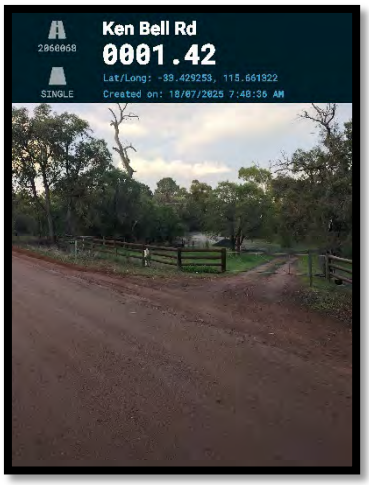
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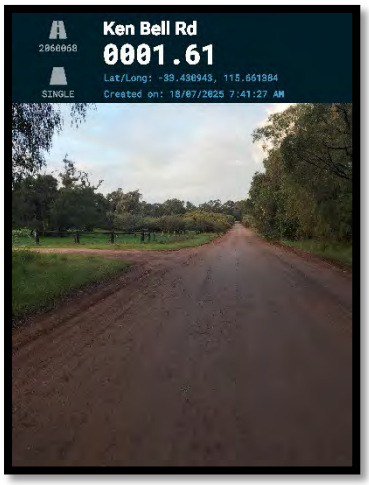
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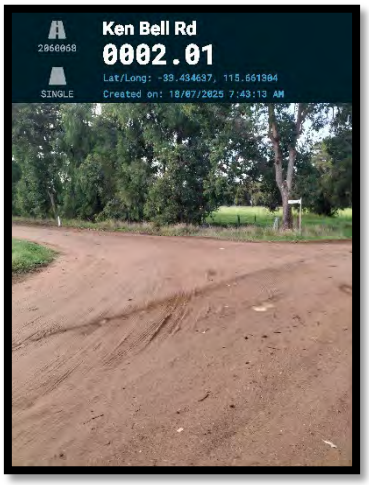
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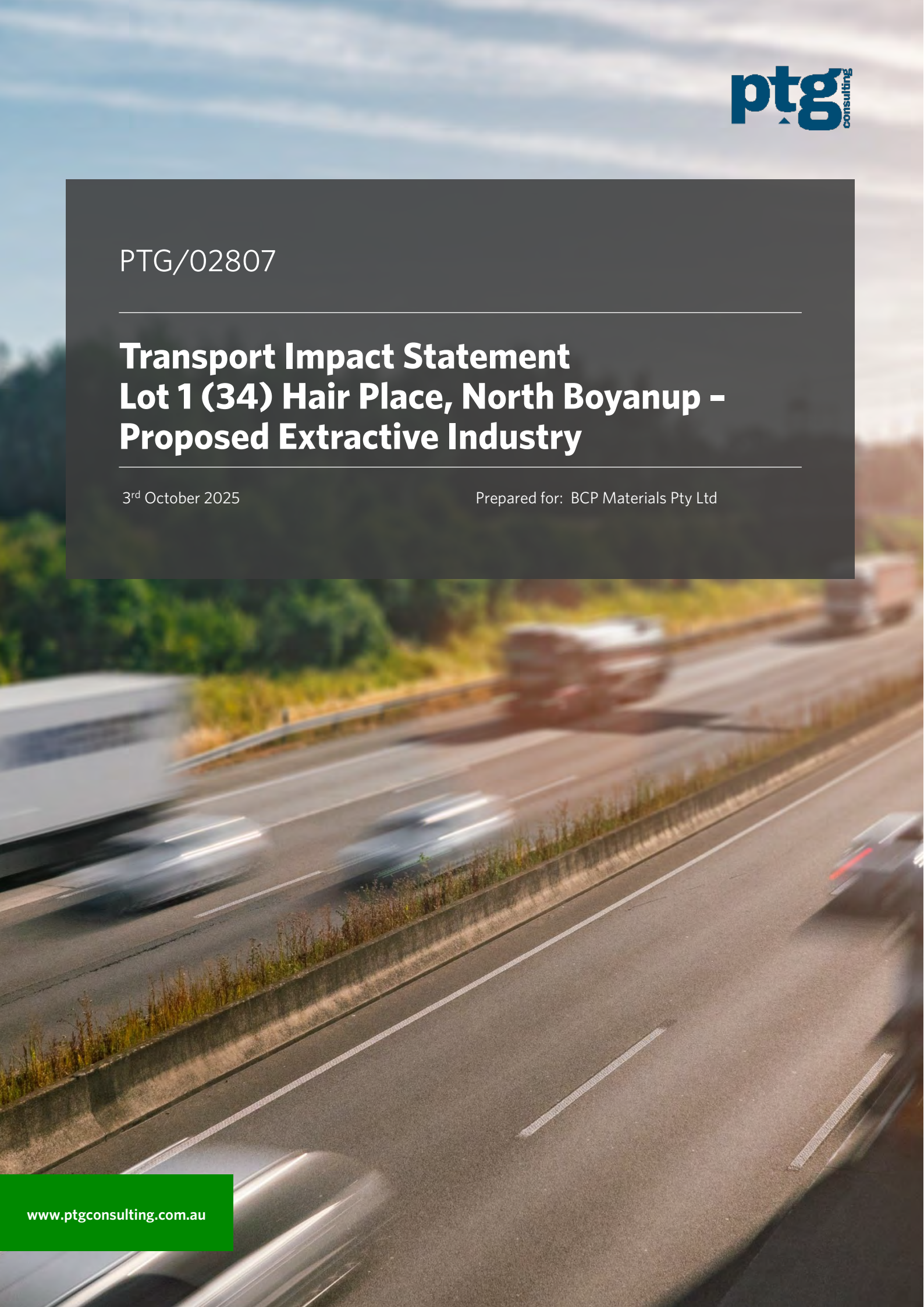

PTG/02807

Transport Impact Statement
Lot 1 (34) Hair Place, North Boyanup – Proposed Extractive Industry

3rd October 2025

Prepared for: BCP Materials Pty Ltd

www.ptgconsulting.com.au

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REPORT DETAILS

Document Title	Transport Impact Statement – Lot 1 (34) Hair Place, North Boyanup – Proposed Extractive Industry
Project Number	PTG/02807
Document ID	TR-R001-A
Client	BCP Materials Pty Ltd

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Revision Details

Revision No.	Date	Comments	Prepared By	Approved By
A	03/10/2025	For Issue	LL	SGL

1 INTRODUCTION

1.1 Background

PTG Consulting Pty Ltd (PTG) has been commissioned by BCP Materials Pty Ltd ('the Client') to prepare a Transport Impact Statement (TIS) for the proposed extractive industry (sand) development located at Lot 1 (34) Hair Place, North Boyanup, within the Shire of Capel (the 'Site').

This report has been prepared in accordance with the Western Australian Planning Commission (WAPC) Transport Assessment Guidelines for Developments: Volume 4 – Individual Developments (2016) and the TIS Checklist is included at Appendix A.

Specifically, this report aims to assess the operations of the proposed development internally and its connections to the adjacent road network, with a focus on traffic volumes, access and accessibility.

This report also outlines the requirements and opportunities associated with traffic and transport within the development, referencing relevant Council and WAPC policies and guidelines as well as best-practice planning within Western Australia.

1.2 Existing Site Context

The proposed development is situated at the eastern end of Hair Place, North Boyanup, as illustrated in **Figure 1.**

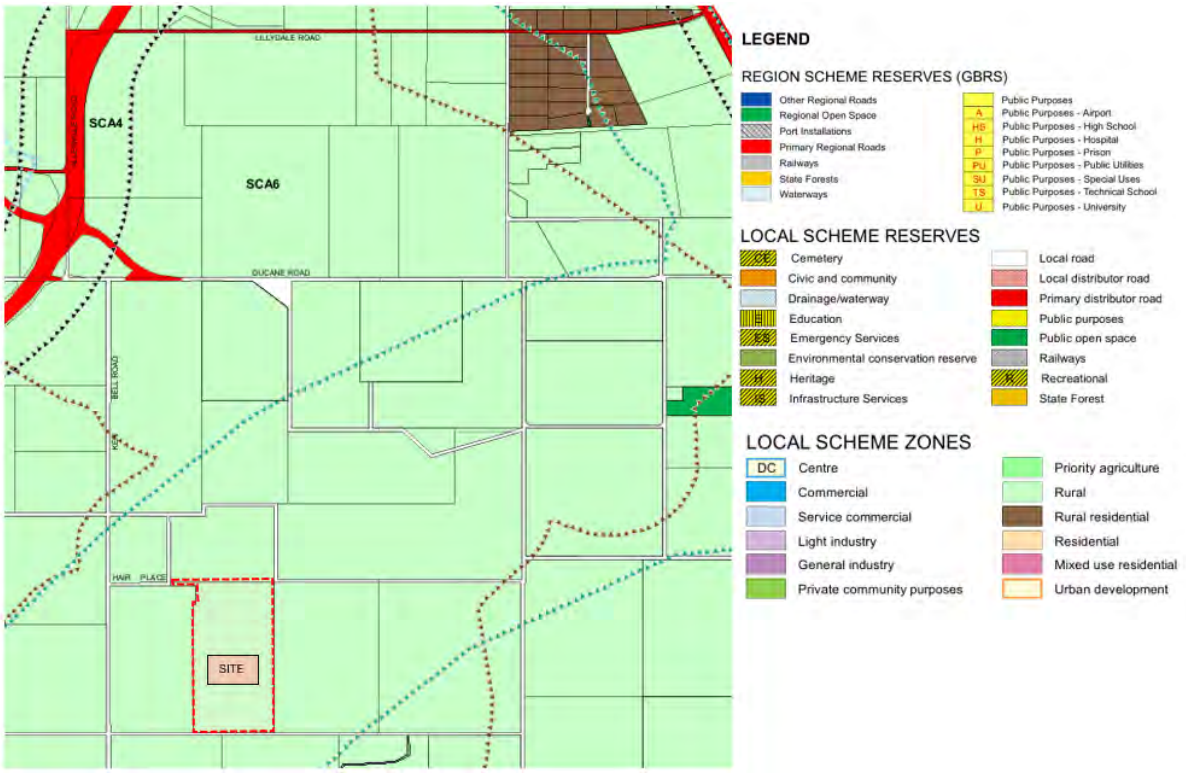
Figure 1 – Site Location

Source: Metromap

1.3 Surrounding Land Uses

According to the Shire of Capel's Local Planning Scheme No. 8, the subject Site is zoned as a 'Rural' area as shown in **Figure 2**. The majority of the properties surrounding the Site are also zoned as Rural areas.

Figure 2 – Zoning Map



Source: Shire of Capel Local Planning Scheme No.8

2 ROAD NETWORK

2.1 Road Hierarchy

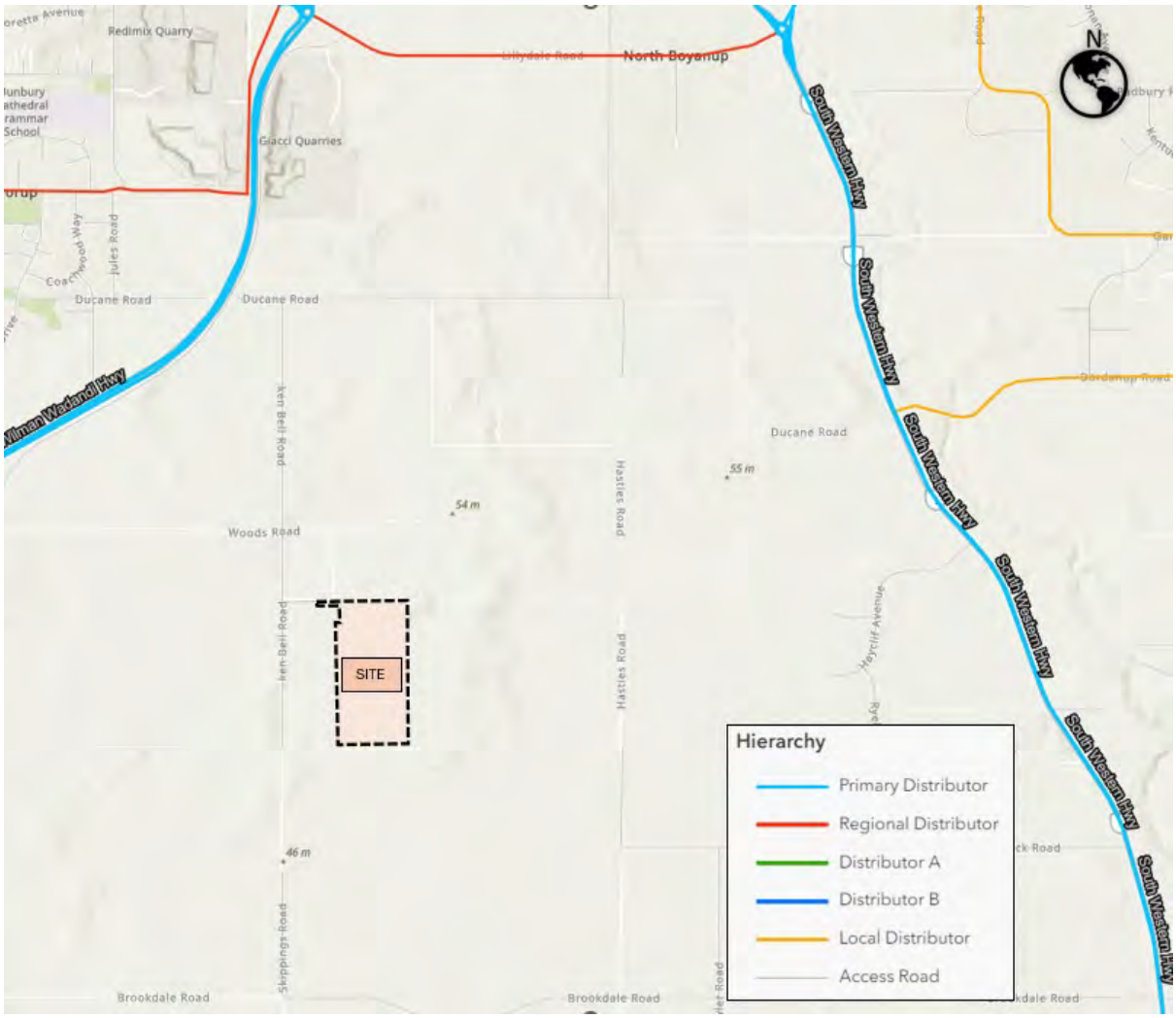
The road network within Western Australia is defined by Main Roads WA Road Hierarchy which describes the function, characteristic and management of each type of road. A description of each road type as per Main Roads WA Road Hierarchy criteria is summarised in **Table 1** below.

Table 1 – Road Hierarchy Description

Road Type	Description
Primary Distributors	Provide for major regional and inter-regional traffic movement and carry large volumes of generally fast-moving traffic. Some are strategic freight routes and all are State Roads. They are managed by Main Roads Western Australia.
District Distributor A	Carry traffic between industrial, commercial and residential areas and generally connect to Primary Distributors. These are likely to be truck routes and provide only limited access to adjoining property. They are managed by local government.
District Distributor B	Perform a similar function to type A District Distributors but with reduced capacity due to flow restrictions from access to and roadside parking alongside adjoining property. These are often older roads with a traffic demand in excess of that originally intended. District Distributor A and B roads run between land-use cells and generally not through them, forming a grid which would ideally space them around 1.5 kilometres apart. They are managed by local government.
Regional Distributor	Roads that are not Primary Distributors but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas. They are managed by local government.
Local Distributor (Urban)	Roads that carry traffic within a cell and link District Distributors or Regional Distributors at the boundary, to access roads. The route of Local Distributors should discourage through traffic so that the cell formed by the grid of District Distributors only carries traffic belonging to or serving the area. These roads should accommodate buses but discourage trucks. Urban Local Distributor roads are managed by local government.
Local Distributor (Rural)	Connect to other Rural Distributors and to Rural Access Roads. Not Regional Distributors, but which are designed for efficient movement of people and goods within regional areas. Rural Local Distributor roads are managed by local government.
Access Roads	Provide access to abutting properties with amenity, safety and aesthetic aspects having priority over the vehicle movement function. These roads are bicycle and pedestrian friendly. They are managed by local government.

Figure 3 shows the road hierarchy network and **Table 2** provides a summary of the road characteristics of the surrounding road network.

Figure 3 - Road Hierarchy



Source: Main Roads Road Information Mapping

Table 2 – Surrounding Network Road Hierarchy

Road Name	Road Hierarchy	Jurisdiction	No. of Lanes	Road Pavement Width (m)	No. of Footpaths	Speed Limit (km/h)
Hair Place	Access Road	Local Government	2	6.5[1]	0	110[2]
Ken Bell Road	Access Road	Local Government	2	7.8[1]	0	110[2]
Queelup Road E-W section (formerly Ducane Rd)	Access Road	Local Government	2	7 – 7.8[1]	0	110[2]
Jilley Road	Access Road	Local Government	2	9 – 11.8	0	110[2]
Lillydale Road	Regional Distributor	Local Government	2	17 (including 4.5m median and sealed shoulder)	0	80
Wilman Wadandi Highway	Primary Distributor	MRWA	4 (two lanes in each direction, divided)	37 (including 11m median & 3m sealed shoulders on either side)	1[3]	110

[1] *Unsealed carriageway width*
[2] *Default speed limit outside built-up areas*
[3] *North of Lillydale Road only*

Source: Main Roads Road Information Mapping

2.2 Nearby Intersection and Roads

2.2.1.1 Jilley Road

Jilley Road is a rural road providing access between Lillydale Road in the north and Queelup Road in the south. The road alignment is generally straight with some horizontal and vertical curves. Jilley Road is sealed, with a typical seal width of 7.8m and variable unsealed shoulder width.

The Jilley Road/Queelup Road intersection serves as the primary access point to the proposed development site. The intersection has only recently been constructed and currently provides a functional connection to the broader road network. **Figure 4** to **Figure 6** shows the existing roads and intersections.

Figure 4 - Jilley Road facing east – approx. SLK 9.0

Figure 5 - Jilley Road facing west – approx. SLK 9.0

Figure 6 - Jilley Road / Queelup Road Intersection, aerial view

Source: Nearmap

2.2.1.2 Queelup Road

Queelup Road (previously known as Ducane Road), is a rural road providing east–west connectivity between Jilley Road and the Bunbury Outer Ring Road extension. The carriageway width varies but is generally between 7 m to 7.8 m. Approximately 125m on the approach to Jilley Road is sealed, with the remainder unsealed.

Figure 7 to **Figure 11** shows Queelup Road between Jilley Road and Ken Bell Road intersection.

Figure 7 - Queelup Road approaching Jilley Road, looking west

Figure 8 – Queelup Road looking east between Jilley Road and Ken Bell Road

Figure 9 - Queelup Road / Ken Bell Road intersection

Figure 10 - Queelup Road / Ken Bell Road intersection, looking east

Figure 11 – Queelup Road / Ken Bell Road intersection, aerial view

Source: Metromap

2.2.1.3 Ken Bell Road

Ken Bell Road is a rural access road that provides a north–south link connecting to Queelup Road. The carriageway width ranges between 5 to 5.8m between Queelup Road up and Hair Place intersection, then narrowing to a single lane track south of Hair Place. In some short sections the effective trafficable width reduces to approximately 4.0 m.

Figure 12 to **Figure 17** shows the existing condition of Ken Bell Road between Queelup Road and Hair Place.

Figure 12 - Ken Bell Road, looking north – approx. SLK 0.17

Figure 13- Ken Bell Road, looking north – approx. SLK 1.04

Figure 14 - Ken Bell Road, looking north - approx. SLK 1.16

Figure 15 – Hair Place / Ken Bell Road Intersection, looking south

Figure 16 - Hair Place / Ken Bell Road Intersection, looking north

Figure 17 - Ken Bell Road / Hair Place Intersection, aerial view

Source: Metromap

2.2.1.4 Hair Place

Hair Place is a short rural road that connects to Ken Bell Road primarily serving local properties. The alignment is straight and the carriageway width is between 5.5-6.5 m. **Figure 18** shows the existing road layout.

Figure 18 – Hair Place, looking east – approx. SLK 0.19

2.3 Traffic Flows on Surrounding Roads

The existing traffic volumes surrounding the site were sourced from the traffic counts arranged by PTG and are summarised in **Table 3.**

Table 3 - Existing Traffic Volumes

Road Name	Date	Source	AM Peak (vph)	PM Peak (vph)	Daily (vpd)
Lillydale Road (West of Jilley Road)	Sept 2025	PTG Traffic Counts	221	223	2230*
Lillydale Road (East of Jilley Road)	Sept 2025	PTG Traffic Counts	186	190	1900*
Jilley Road (North of Queelup Road)	Sept 2025	PTG Traffic Counts	23	30	284
Queelup Road (East of Jilley Road)	Sept 2025	PTG Traffic Counts	7	8	70
Ken Bell Road (South of Queelup Road)	Sept 2025	PTG Traffic Counts	4	6	53

**Estimated based on 10% peak hour to daily ratio*

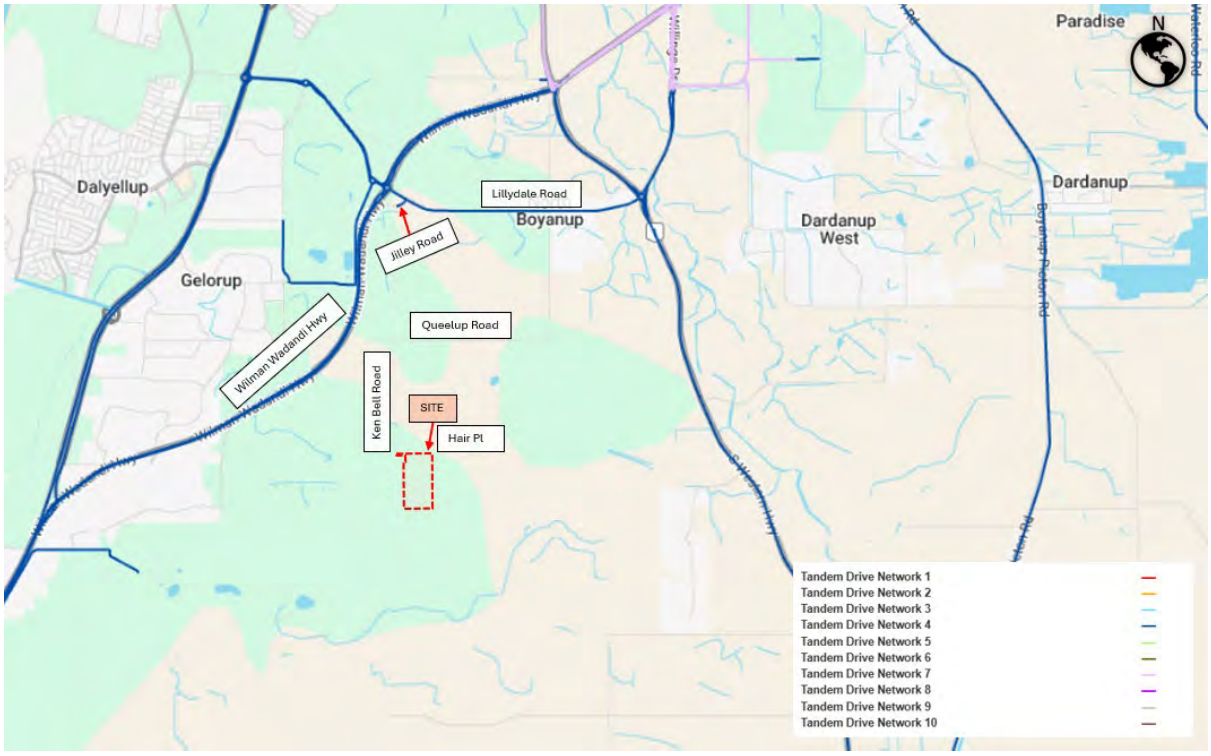
2.4 Existing Restricted Access Vehicle (RAV) Network

Figure 19 shows the existing RAV network in the vicinity of the Site.

Wilman Wadandi Highway, Lillydale Road and a short section of Jilley Road are approved for RAV Network TD4, providing access to the existing Heidelberg Materials quarry at the northern end of Lillydale Road.

The remainder of the haulage route to/from the Site is not currently approved for RAV access.

Figure 19 - Existing RAV Network



Source: MRWA HVS Network Map

2.5 Changes to Surrounding Road Network

PTG is not aware of any planned changes to the surrounding road network.

3 PUBLIC TRANSPORT FACILITIES

There is no existing public transport network in the vicinity of the site.

3.1 Future Public Transport Facilities

There are currently no future public transport facilities proposed near the vicinity of the Site.

4 PEDESTRIAN AND CYCLING FACILITIES

There is no existing pedestrian and cycling network in close proximity of the site.

Wilman Wadandi Highway (Bunbury Outer Ring Road/BORR) includes 17 kilometres of path network, including a principal shared path (PSP) to enhance cycling infrastructure in the Southwest as shown in **Figure 20**. The path network provided as part of the BORR includes:

- PSP from Willinge Drive to Lillydale Road along Wilman Wadandi Highway
- PSP along the new section of Lillydale Road to Bussell Highway

Figure 20 - Existing Path Network along BORR project

Source: Main Roads

4.1 Future Pedestrian and Cycling Facilities

There is currently no proposal for pedestrian and cycling facilities near the vicinity of the Site.

5 PROPOSED DEVELOPMENT

5.1 Proposed Land Use

The proposed development is for an extractive industry (sand) on a rural property, 46.4ha in size.

Sand extraction is proposed to occur across a total of 30.16ha of the Site, across 15 stages, with each stage comprising an area of less than 2ha at any one time.

Figure 21 shows the proposed extraction area in relation to the subject Site, and **Figure 22** illustrates the proposed extraction staging. Larger version is provided in **Appendix B**.

Figure 21 – Existing Contour and Feature Plan

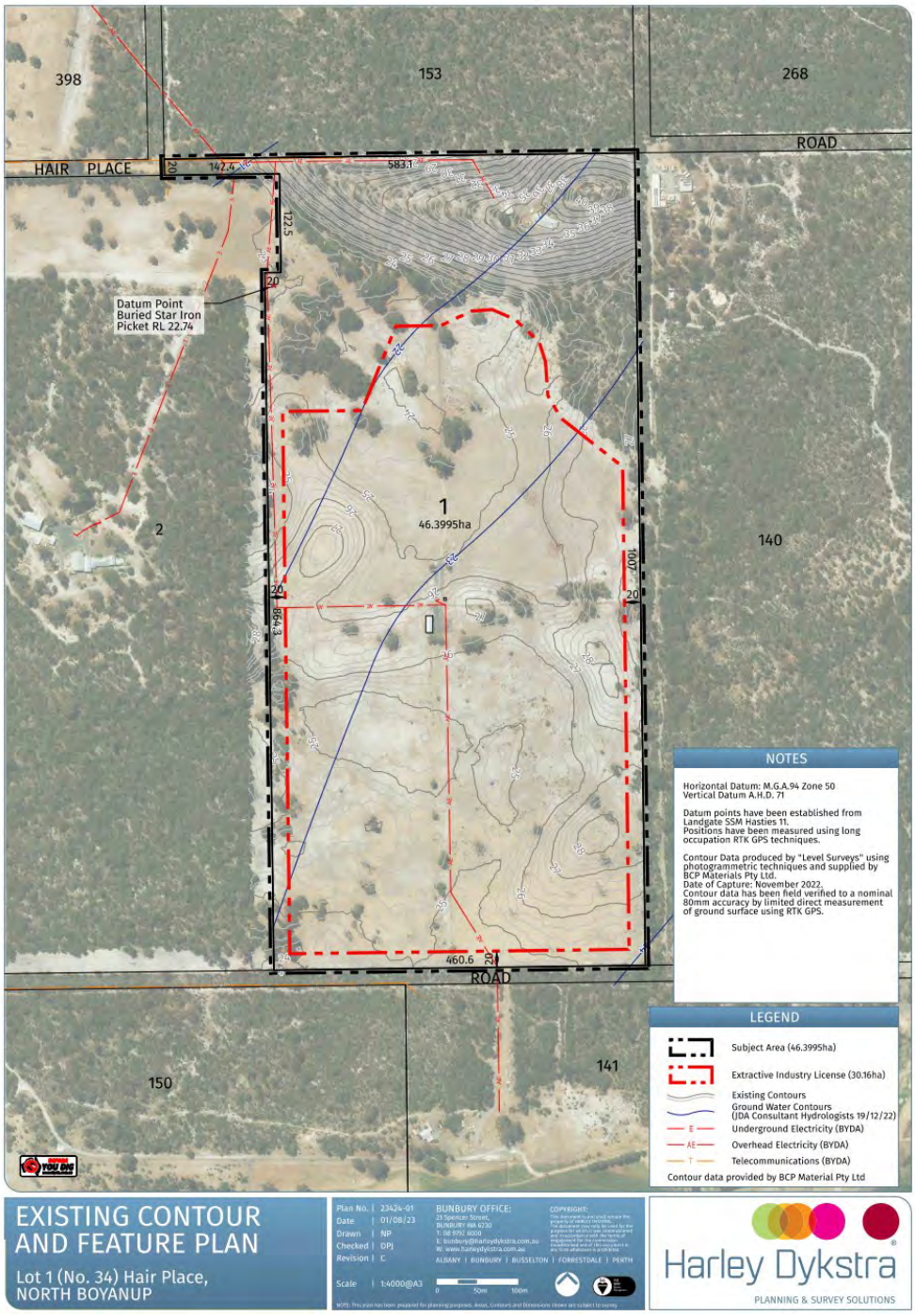
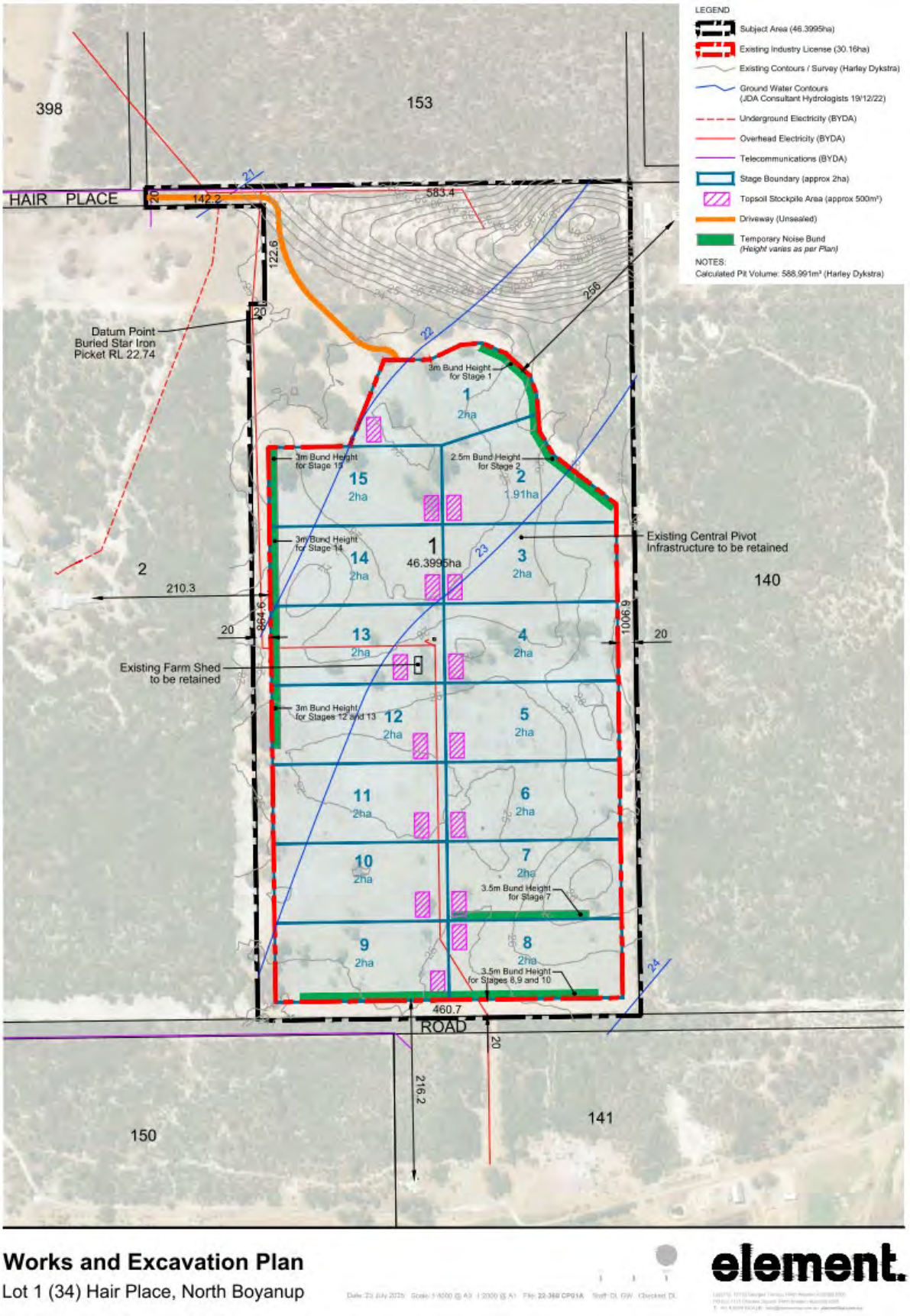


Figure 22 - Works and Excavation Plan

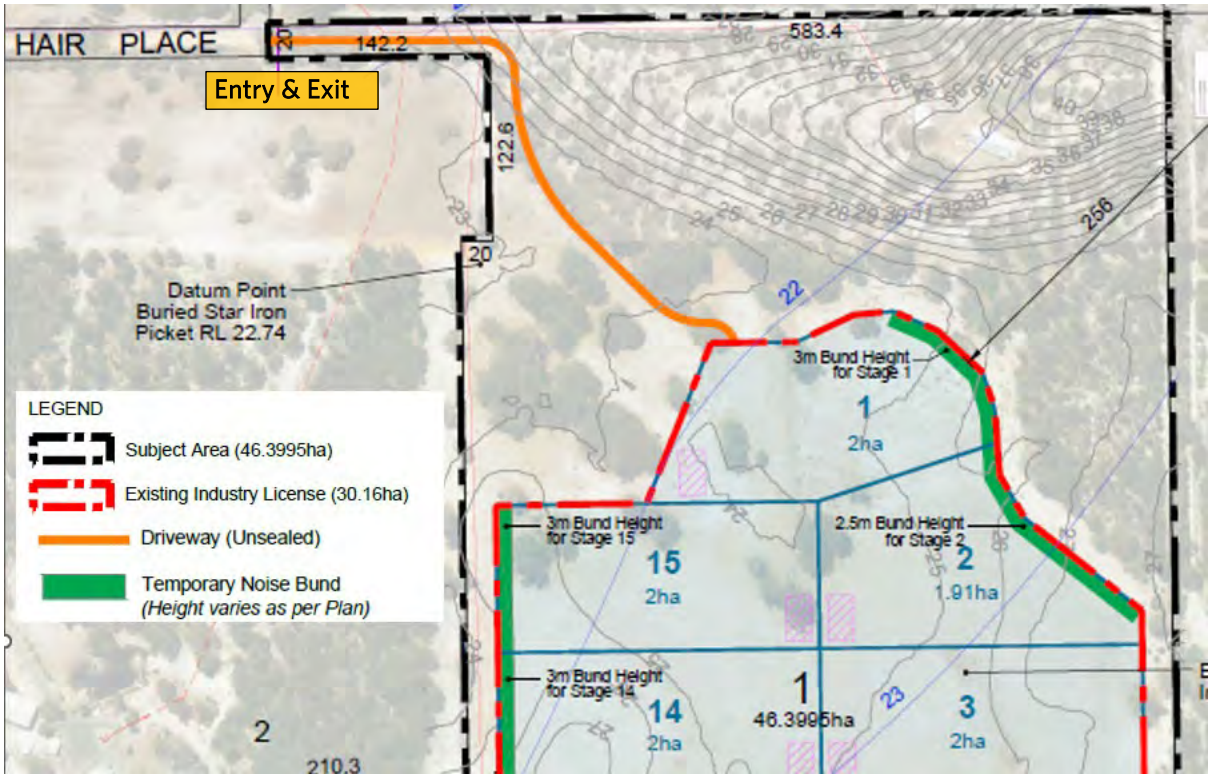


5.2 Access Arrangements

The Site will be accessed via an existing crossover at the eastern end of Hair Place as illustrated in **Figure 23**.

Within the sit boundary a limestone access road will be constructed during extraction operations for loading and turnaround facilities as required by operations. Removal of the internal limestone driveway will be completed prior to rehabilitation of each extraction stage.

Figure 23 - Access Arrangements



Source: Harley Dykstra

5.3 Vehicle Types

It is proposed to utilise as-of-right (≤19.0m long; ≤42.5 tonnes GVM) vehicles for haulage operations.

5.4 Proposed Haulage Route

Sand extraction is to be completed by BCP Group, with haulage proposed to use 19m trucks on the road network identified in the haulage route shown in **Figure 24**. The haulage route is to connect to the Bunbury Outer Ring Road (Wilman Wadandi Highway) via Ken Bell Road, Queelup Road (formerly Ducane Road), Jilley Road and Lillydale Road.

Figure 24 - Proposed Haulage Route

Source: element

5.5 Hours of Operation

The proposed hours of operation are 7:00am to 6:00pm, Monday to Friday inclusive, and 7:00am to 12:00pm on Saturdays. No works are to occur on Sundays or Public Holidays.

5.6 Trip Generation

For the purposes of this assessment, a trip is defined as the ingress and egress of a vehicle to and from the Site. Accordingly, a vehicle that enters and subsequently exits the Site within the same day is considered to generate two trips.

» Staff trips

For the purpose of estimating trip generation, it is estimated that the Site will have a maximum of 4 employees on-site.

» Peak Hour Haulage

The maximum haulage intensity is anticipated to be 10 loaded trucks per peak hour, which equates to 20 trips per hour (10 inbound unloaded and 10 outbound loaded movements).

» Daily Trips

During normal operating periods, the Site is expected to generate up to 50 loaded trucks per day which is equivalent to 100 daily trips.

» Short Term Peak Demand

On occasion during periods of increased demand for materials, peak haulage operations may extend over longer working hours within the same day resulting in a higher number of daily truck movements with no change to the maximum number of truck movements per hour. These short-term peaks are expected to occur only for limited durations (e.g. a few days).

» Annual Tonnage

The total yearly tonnage material is expected to be 120,000 tonnes per annum.

Table 4 shows the estimated traffic generation.

Table 4 - Estimated Traffic Generation

	AM Peak (vph)		PM Peak (vph)		Daily (vpd)
	IN	OUT	IN	OUT	
Truck Trips	10	10	10	10	100
Staff Trips (Light Vehicles)	4	-	-	4	8
Total	**24**		**24**		**108**

It should be noted that the above values are based on estimates provided by the client. The actual number of trips generated by the development may fluctuate depending on the time of day and extraction requirements however, such variations are expected to remain consistent with the estimated trip generation.

6 SITE SPECIFIC ISSUES

6.1 Haulage Route Review

6.1.1 Swept Path Analysis

The proposed development seeks to use 19m as-of-right vehicles for haulage which are not restricted on the identified haulage route. Swept path checks were conducted to assess the manoeuvrability of transport trucks along the haulage route of the proposed development as shown in **Figure 25** to **Figure 28**. Larger versions are provided in Appendix C.

The swept path analysis indicates that the proposed haulage vehicles are capable of performing turns within the available road width at the assessed intersections, however at the following intersections these movements will involve utilising the full width of the carriageway:

- Queelup Road / Ken Bell Road
- Ken Bell Road / Hair Place

As Queelup Road, Ken Bell Road and Hair Place are all low volume roads (<75vpd) it is considered these movements can be managed satisfactorily, subject to a suitable traffic management plan being implemented (refer to Section 6.1.2).

Figure 25 – Ken Bell Road / Hair Place intersection – 19m swept path – inbound

Figure 26 - Ken Bell Road / Hair Place intersection – 19m swept path – outbound

Figure 27 - Queelup Road /Ken Bell Road Intersection – 19m swept path - inbound

Figure 28 - Queelup Road /Ken Bell Road Intersection – 19m swept path - outbound

6.1.2 Traffic Management

A Traffic Management Plan should be prepared and implemented to manage the safe movement of haulage vehicles along the section of the route between the Queelup Road/Ken Bell Road intersection and the site access point.

Due to the narrow carriageway along much of Ken Bell Road, and the background traffic of 53 vpd, it is recommended that the traffic management plan include the one-way operation of haulage vehicles along this road section, with radio communication between vehicles, accompanied by appropriate warning signs and clearly identified locations where the wider road formation would allow oncoming vehicles to pass easily. The speed of haulage vehicles should also be reduced to 60km/h or less to ensure safe operation on the narrow carriageway.

6.2 Crash Assessment

A crash assessment for the proposed haulage route has been completed using Main Roads WA Reporting Centre. The assessment covers all the recorded crashes for the 5-year period between 1 January 2020 to 31 December 2024 for the following road sections:

- Jilley Road - SLK 7.76 to SLK 9.29
- Queelup Road - SLK 2.65 to SLK 5.10
- Ken Bell Road - SLK 0.0 to SLK 2.31
- Hair Place - SLK 0.0 to SLK 0.35

Only 1 crash was recorded along the proposed haulage route. This crash occurred on Queelup Road (148m west of Ken Bell Road) with the crash being hit object to avoid animal. The crash location and severity of these crash is illustrated in **Figure 29** while **Table 5** provides the summary of all crashes that occurred along the proposed haulage route.

Table 5 - Total Crashes

Road Name	Crash Nature	Fatal	Hospital	Medical	PDO Major	PDO Minor	Total Crashes
Queelup Road	Hit Object	-	-	-	1	-	1
	Total	**-**	**-**	**-**	**1**	**-**	**1**

Figure 29 - Crash Locations

Source: Main Roads WA Reporting Centre

6.3 SIDRA Analysis

Following a request from the Shire of Capel, a SIDRA analysis has been undertaken of the Lillydale Road / Jilley Road intersection. Traffic volumes adopted for the SIDRA analysis were based on existing traffic counts conducted on 11th September 2025. The peak hours observed based on counts are as follows:

- AM Peak – 07.45 – 08.45
- PM Peak – 15.00 – 16.00

The approval for the proposed development is only being sought for 8 years of extractive operations, however a 10-year horizon was assessed as per WAPC guidelines, assuming that the Site is still operating at this time. The following scenarios have been modelled:

- Scenario 1 – Existing Year (2025)
- Scenario 2 - Opening Year – 2026 with Development
- Scenario 3 – Horizon Year – 2036 with Development

6.3.1 Key Assumptions

Assumptions used in undertaking the SIDRA analysis are detailed below:

- The intersection was modelled in accordance with MRWA Operational Modelling Guidelines in SIDRA 10.
- Dimensions of all intersection elements (e.g., lane width, median width, etc.) were measured from the latest Metromap aerial photos.
- The heavy vehicle proportions were based on the 2025 traffic counts and assumed to be the same for the future background traffic.
- As there was no available historical traffic count data for either Lillydale Road or Jilley Road, an annual traffic growth rate of 2% has been adopted for robust assessment to obtain 2026 and 2036 background traffic volumes.
- For the purpose of this assessment, it has been assumed that development-related trips will be distributed based on haulage route with 100% entering and exiting to and from the western approach of Lillydale Road.

6.3.2 Intersection Performance

The intersections have been analysed using the SIDRA analysis program. This program calculates the performance of intersections based on input parameters, including geometry and traffic volumes. As an output, SIDRA provides values for the Degree of Saturation (DOS), queue lengths, delays, level of service, and 95th Percentile Queue. These parameters are defined as follows:

- Degree of Saturation (DOS): is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for varied traffic flow, up to one for saturated flow or capacity. The theoretical intersection capacity is exceeded for an un-signalised intersection where DOS > 0.80;
- 95% Percentile Queue Length: is the statistical estimate of the queue length up to or below which 95% of all observed queues would be expected;
- Average Delay: is the average of all travel time delays for vehicles through the intersection. An un-signalised intersection can be considered to be operated at capacity where the average delay exceeds 40 seconds for any movement;
- Level of Service (LOS): is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. **Table 6** provides a description of the different levels of service.

Table 6 - Level of Service (LoS) Performance Criteria

LOS	Description	Signalised Intersection	Unsignalised Intersection
A	Free-flow operations (best condition)	≤10 sec	≤10 sec
B	Reasonable free-flow operations	10-20 sec	10-15 sec
C	At or near free-flow operations	20-35 sec	15-25 sec
D	Decreasing free-flow levels	35-55 sec	5-35 sec
E	Operations at capacity	55-80 sec	35-50 sec
F	A breakdown in vehicular flow (worst condition)	≥80 sec	≥50 sec

6.3.3 Traffic Volumes

Traffic volumes adopted for the SIDRA analysis are shown in Figure 30 to Figure 32.

Figure 30 – Lillydale Road / Jilley Road – Scenario 1 (2025)

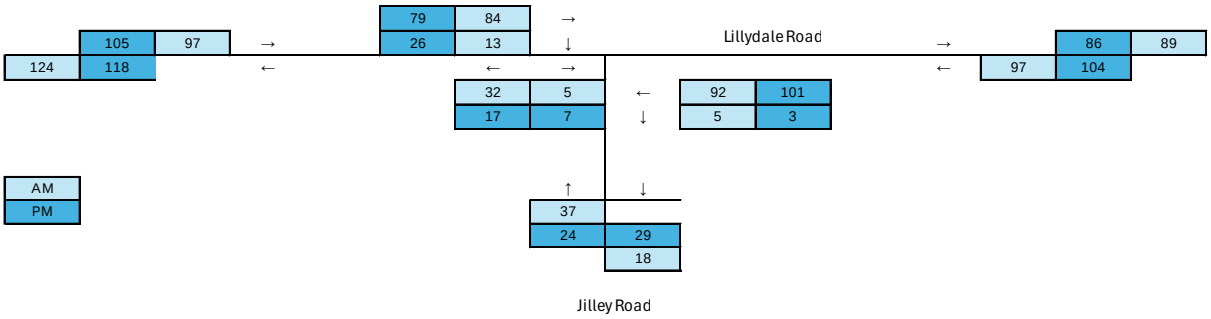


Figure 31 - Lillydale Road / Jilley Road – Scenario 2 (2026 With Development)

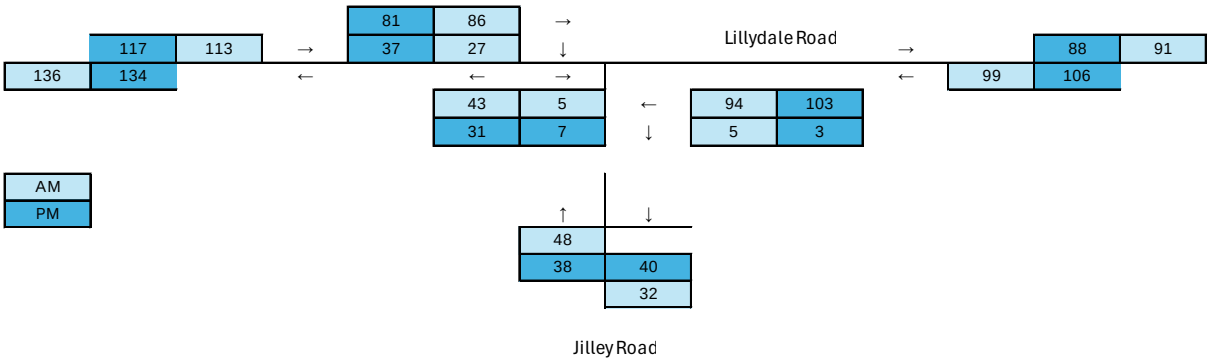
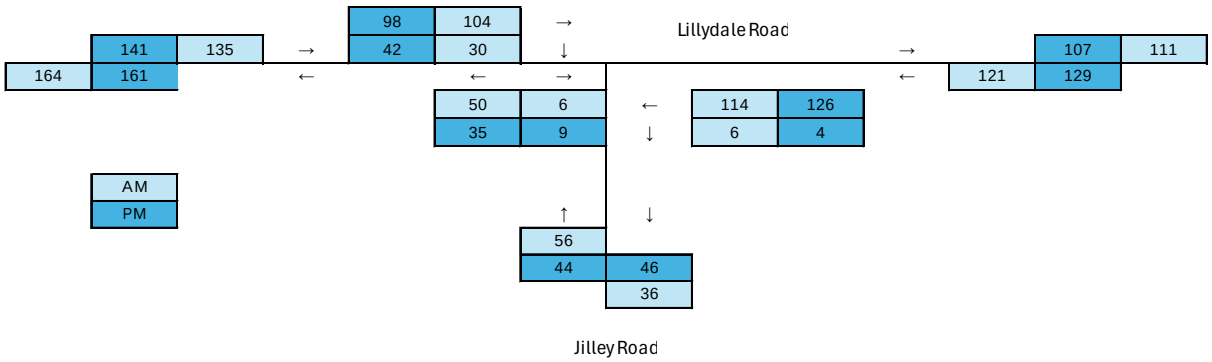


Figure 32 - Lillydale Road / Jilley Road – Scenario 3 (2036 With Development)



6.3.4 Jilley Road / Lillydale Road Intersection

The SIDRA layout adopted for Jilley Road / Lillydale Road intersection is shown in **Figure 33.**

The analysis results for the intersection are presented in **Table 7** to **Table 9**.The results indicate that the intersection would operate satisfactorily in all scenarios, with a maximum DOS of <0.1 in 2036.

Figure 33 – SIDRA Layout – Lillydale Road / Jilley Road

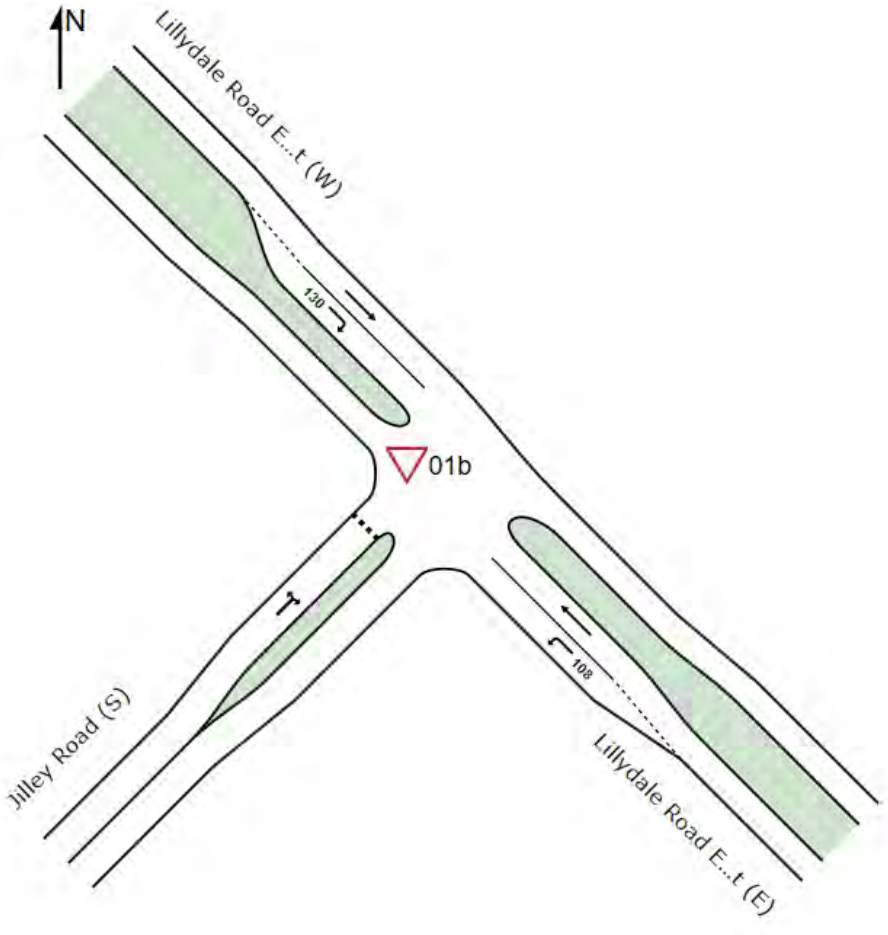


Table 7 - SIDRA Results – Lillydale Road / Jilley Road – Scenario 1

Intersection Approach	Turn	AM Peak				PM Peak			
		DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Lillydale Road East (E)	L	0.007	9.2	A	0	0.004	8.9	A	0.0
	T	0.059	0.0	A	0	0.057	0.0	A	0.0
Lillydale Road East (W)	T	0.051	0.0	A	0	0.045	0.0	A	0.0
	R	0.016	9.1	A	0.8	0.030	8.8	A	1.5
Jilley Road (S)	L	0.053	10.4	B	2.6	0.035	11.4	B	1.5
	R	0.053	12.5	B	2.6	0.035	10.5	B	1.5

Table 8 - SIDRA Results – Lillydale Road / Jilley Road – Scenario 2

Intersection Approach	Turn	AM Peak				PM Peak			
		DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Lillydale Road East (E)	L	0.007	9.2	A	0	0.004	8.9	A	0.0
	T	0.060	0.0	A	0	0.058	0.0	A	0.0
Lillydale Road East (W)	T	0.052	0.0	A	0	0.046	0.0	A	0.0
	R	0.033	9.1	A	1.7	0.043	8.8	A	2.2
Jilley Road (S)	L	0.069	10.5	B	3.4	0.054	11.8	B	2.5
	R	0.069	13.1	B	3.4	0.054	10.5	B	2.5

Table 9 - SIDRA Results – Lillydale Road / Jilley Road – Scenario 3

Intersection Approach	Turn	AM Peak				PM Peak			
		DOS	Delay (s)	LOS	95% Queue (m)	DOS	Delay (s)	LOS	95% Queue (m)
Lillydale Road East (E)	T	0.008	9.2	A	0	0.005	8.9	A	0.0
	R	0.073	0.0	A	0	0.071	0.0	A	0.0
Lillydale Road East (W)	T	0.063	0.0	A	0	0.056	0.0	A	0.0
	R	0.038	9.4	A	1.9	0.051	9.1	A	2.5
Jilley Road (S)	L	0.084	10.7	B	4.2	0.067	12.6	B	3.0
	R	0.084	14.1	B	4.2	0.067	10.9	B	3.0

7 CONCLUSIONS

This Transport Impact Statement outlines the transport aspects of the proposed development focusing on traffic operations and access. Included are discussions regarding traffic generation and potential issues.

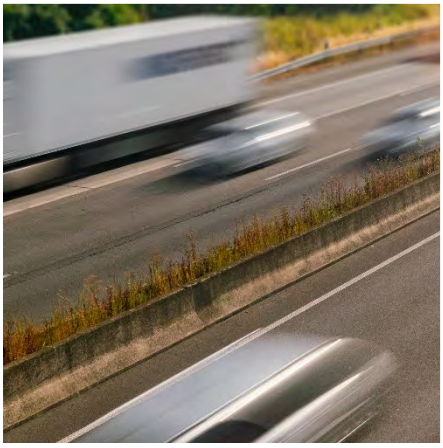
This statement has been prepared following the WAPC Transport Assessment Guidelines for Developments: Volume 4 – Individual Developments (2016).

The following conclusions are made for the proposed development:

- The proposed development is an extracted industry (sand), located at the eastern end of Hair Place, North Boyanup, within the Shire of Capel;
- The proposed development is estimated to generate the following truck movements:
    - Maximum of 10 loaded trucks per hour (20 trips)
    - Up to 50 loaded trucks per day (100 trips) during typical busy periods
    - Occasional periods of peak demand where additional daily trips will occur
- The proposed haulage route has been assessed using swept path analysis and it is considered generally suitable to accommodate the haulage vehicles, subject to proper traffic management measures be implemented to manage the safe movement of haulage vehicles along the section of the route between the Queelup Road/Ken Bell Road intersection and the site access point.
- At the request of the Shire of Capel, a SIDRA analysis was undertaken for the Lillydale Road / Jilley Road intersection which concluded the intersection will operate satisfactorily with the proposed development for both opening-year and 10-year scenarios.

Appendix A

WAPC CHECKLIST FOR INDIVIDUAL DEVELOPMENT - TRANSPORT IMPACT STATEMENT

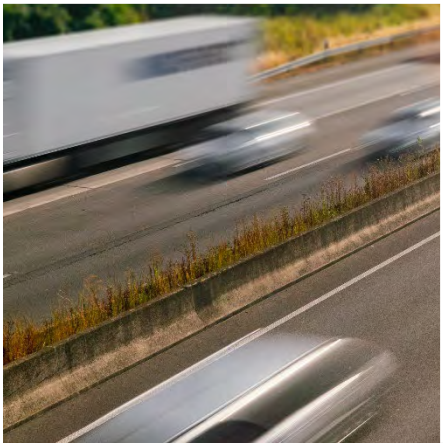


APPENDIX A – WAPC CHECKLIST

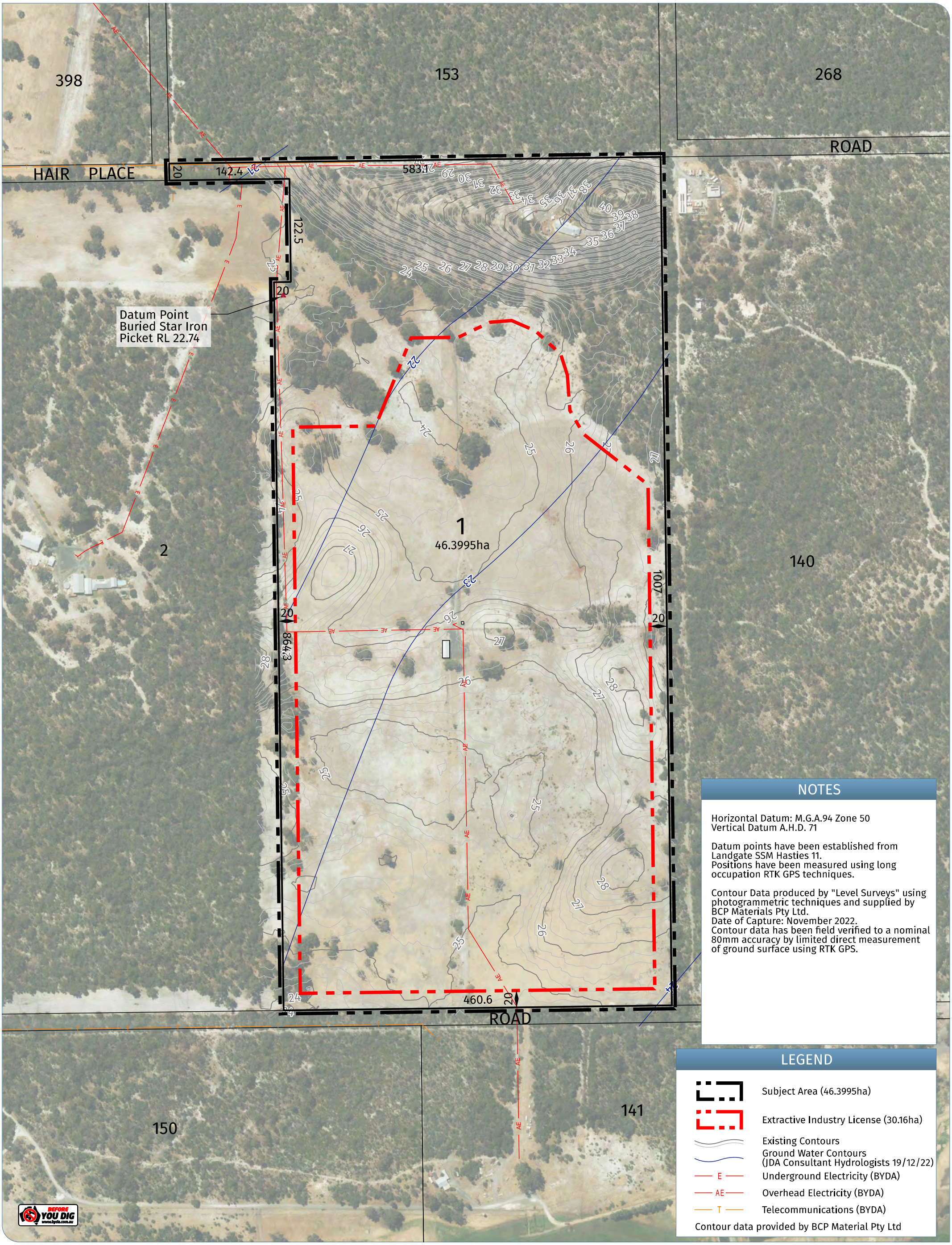
Item	Status	Comments/Proposal
Introduction	**Section 1**	
Background	Section 1	
Existing site context	Section 1	
Context with surrounds	Section 1	
Road Network	**Section 2**	
Road hierarchy	Section 2	
Nearby Intersections and Roads		
Traffic flows on surrounding roads	Section 2	
Existing RAV network	Section 2	
Changes to surrounding road network	Section 2	
Public transport access	**Section 3**	
Future public transport facilities	Section 3	
Pedestrian and Cycle access/facilities	**Section 4**	
Future pedestrian/cycle facilities	Section 4	
Proposed Development	**Section 5**	
Proposed land use	**Section 5**	
Access arrangements	**Section 5**	
Vehicle types	**Section 5**	
Proposed haulage route	**Section 5**	
Hours of operation	**Section 5**	
Trip Generation	**Section 5**	
Site specific issues	**Section 6**	
Haulage route review	Section 6	
Crash assessment	Section 6	
Traffic analysis	Section 6	
Summary	**Section 7**	

Appendix B

SITE PLANS



APPENDIX B – SITE PLANS



NOTES

Horizontal Datum: M.G.A.94 Zone 50
Vertical Datum A.H.D. 71

Datum points have been established from Landgate SSM Hasties 11.
Positions have been measured using long occupation RTK GPS techniques.

Contour Data produced by "Level Surveys" using photogrammetric techniques and supplied by BCP Materials Pty Ltd.
Date of Capture: November 2022.
Contour data has been field verified to a nominal 80mm accuracy by limited direct measurement of ground surface using RTK GPS.

LEGEND

- Subject Area (46.3995ha)
- Extractive Industry License (30.16ha)
- Existing Contours
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- E — Underground Electricity (BYDA)
- AE — Overhead Electricity (BYDA)
- T — Telecommunications (BYDA)

Contour data provided by BCP Material Pty Ltd

EXISTING CONTOUR AND FEATURE PLAN

Lot 1 (No. 34) Hair Place,
NORTH BOYANUP

Plan No.	23424-01
Date	01/08/23
Drawn	NP
Checked	DPJ
Revision	C
Scale	1:4000@A3

0 50m 100m

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NOTE: This plan has been prepared for planning purposes. Areas, Contours and Dimensions shown are subject to survey

Harley Dykstra
PLANNING & SURVEY SOLUTIONS

LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- Underground Electricity (BYDA)
- Overhead Electricity (BYDA)
- Telecommunications (BYDA)
- Stage Boundary (approx 2ha)
- Topsoil Stockpile Area (approx 500m²)
- Driveway (Unsealed)
- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
153
HAIR PLACE
20
142.2
583.4
122.6
20
Datum Point
Buried Star Iron
Picket RL 22.74
256
3m Bund Height
for Stage 1
1
2ha
3m Bund Height
for Stage 15
15
2ha
2.5m Bund Height
for Stage 2
2
1.91ha
3m Bund Height
for Stage 14
14
2ha
1
46.3995ha
3
2ha
Existing Central Pivot
Infrastructure to be retained
2
210.3
140
20
864.6
13
2ha
4
2ha
1006.9
20
Existing Farm Shed
to be retained
3m Bund Height
for Stages 12 and 13
12
2ha
5
2ha
11
2ha
6
2ha
10
2ha
7
2ha
3.5m Bund Height
for Stage 7
9
2ha
8
2ha
3.5m Bund Height
for Stages 8,9 and 10
460.7
ROAD
20
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

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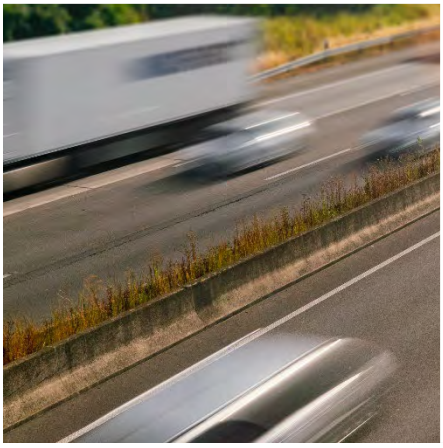
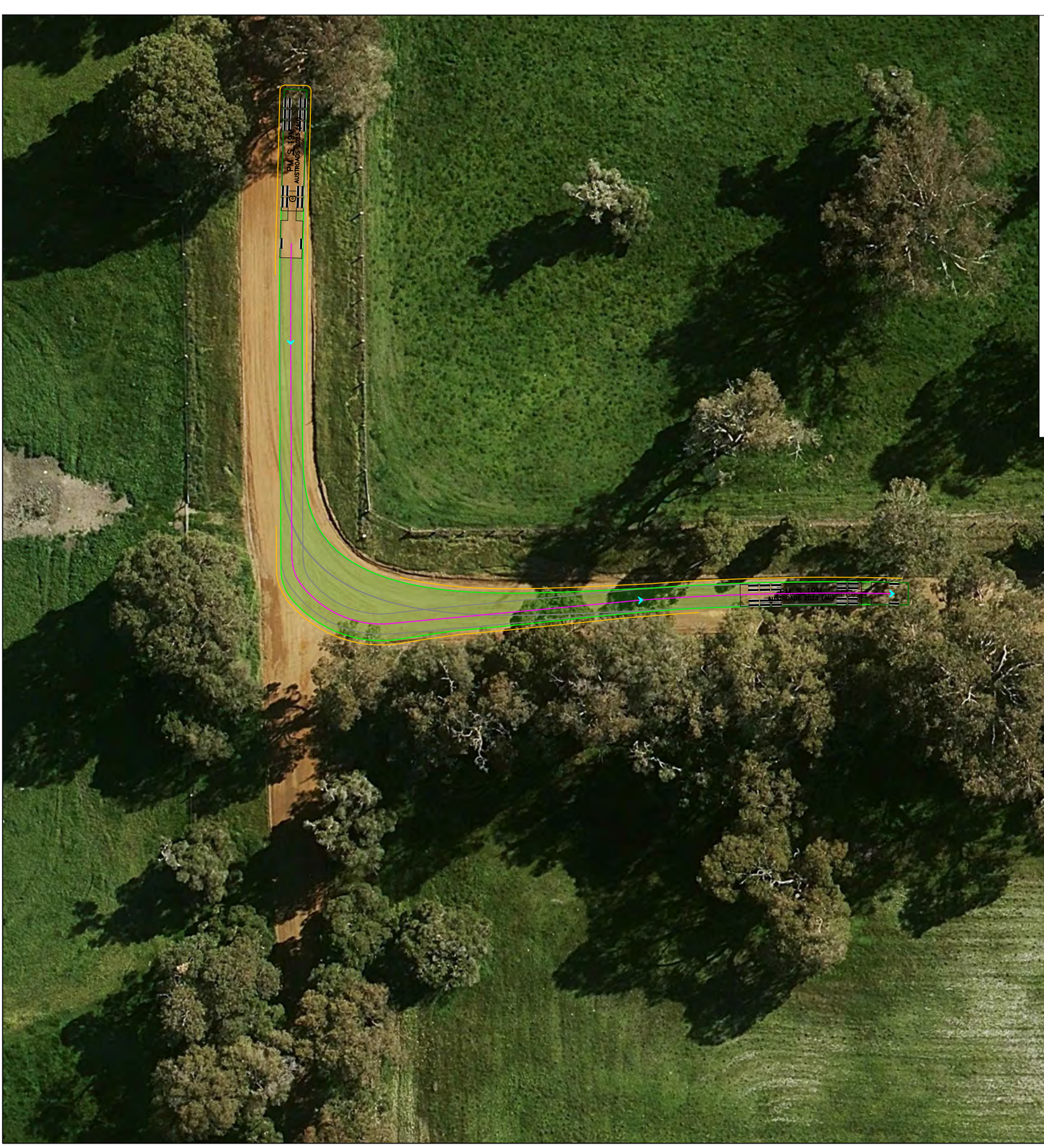
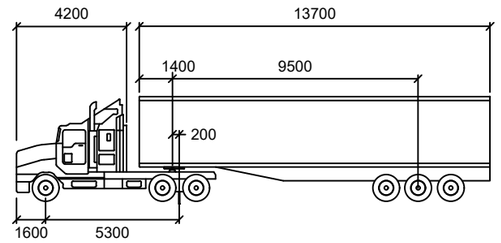
Appendix C

SWEPT PATHS



APPENDIX C – SWEPT PATHS





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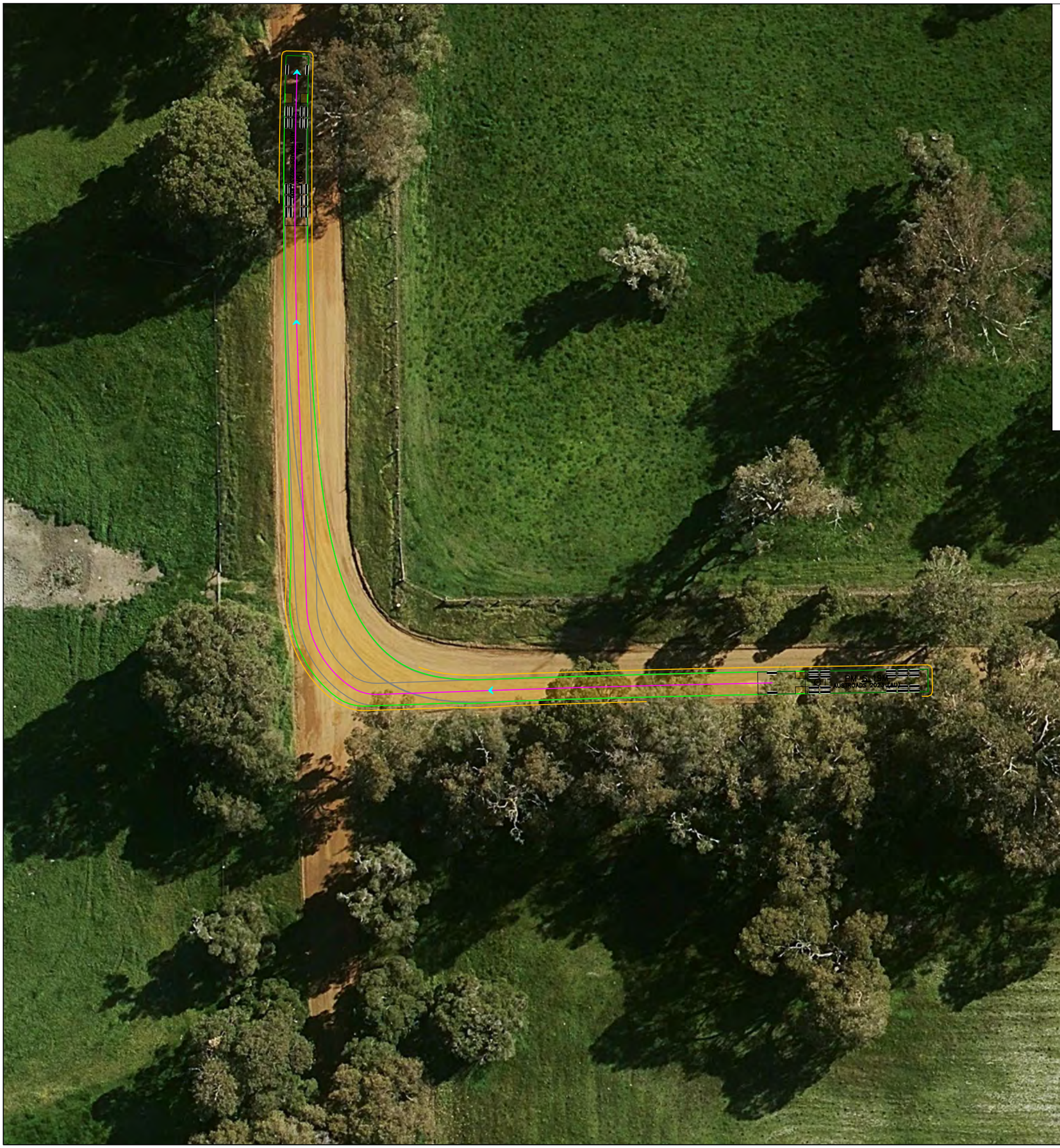

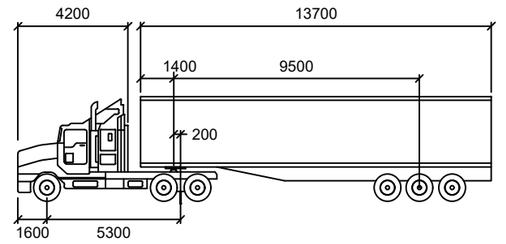

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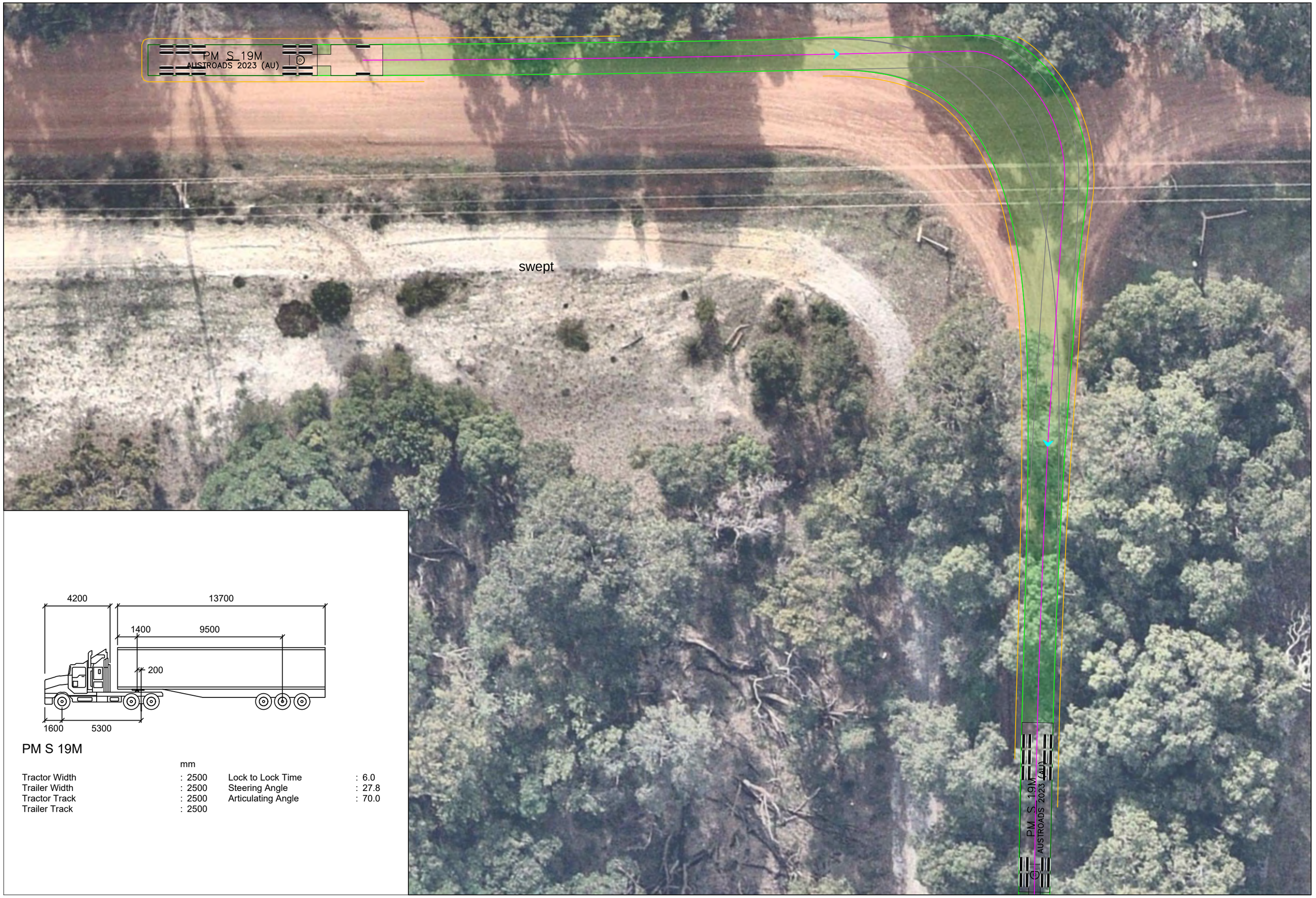

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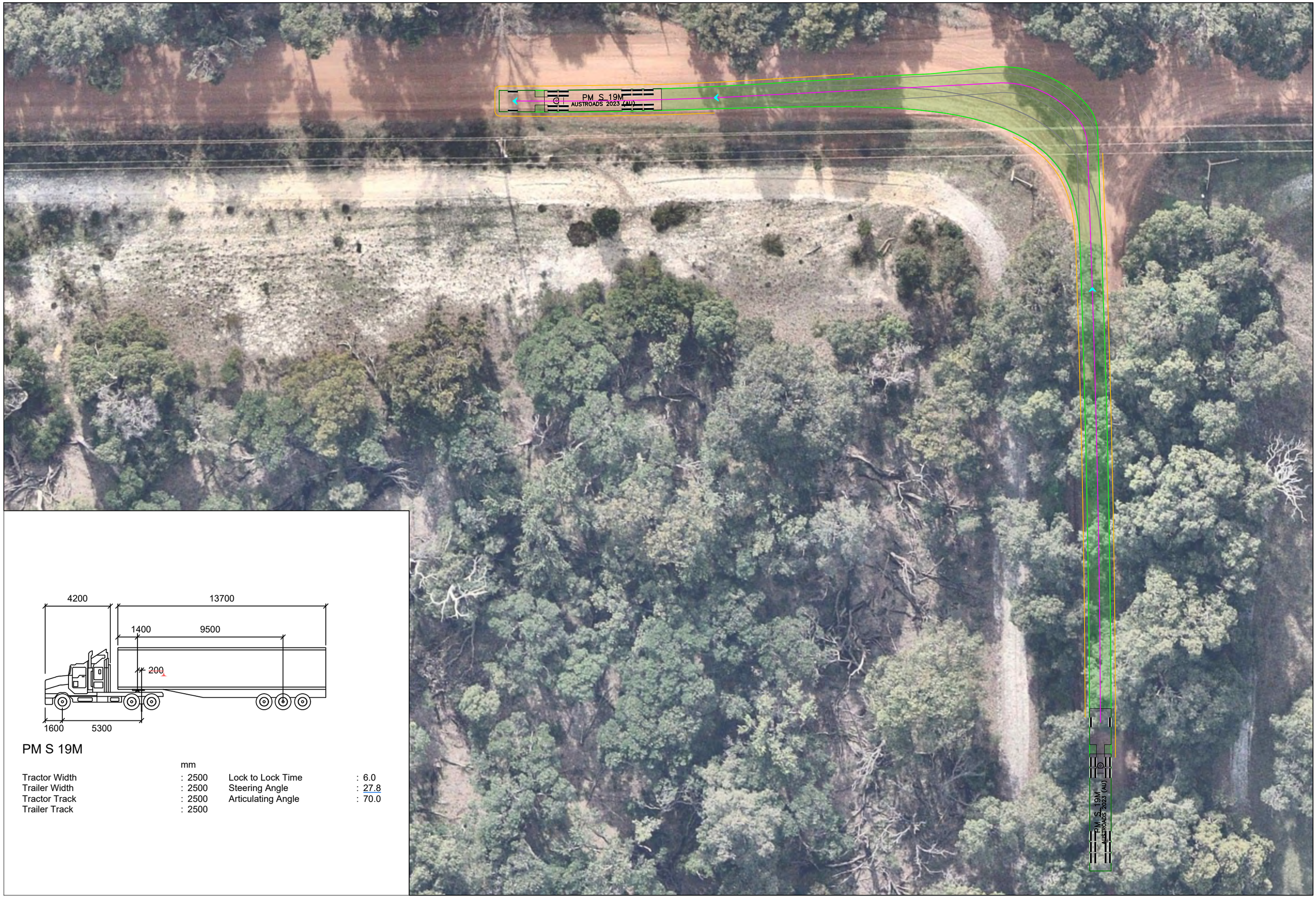

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Tractor Width	: 2500	Lock to Lock Time	: 6.0
Trailer Width	: 2500	Steering Angle	: 27.8
Tractor Track	: 2500	Articulating Angle	: 70.0
Trailer Track	: 2500		

ptg consulting

www.ptgconsulting.com.au

Appendix F – Weed And Dieback Management Plan

34 HAIR PLACE, NORTH BOYANUP

WEED AND DIEBACK MANAGEMENT PLAN

July 2025

Prepared for:

BCP

Prepared by:

Martinick Bosch Sell Pty Ltd
ABN: 60 102 614 478
4 Cook Street
West Perth WA 6005
Phone: (08) 9226 3166
Email: info@mbsenvironmental.com.au
Web: www.mbsenvironmental.com.au

MBS ENVIRONMENTAL

34 HAIR PLACE, NORTH BOYANUP

WEED AND DIEBACK MANAGEMENT PLAN

Distribution List:

Company	Contact Name	Date
BCP Materials Pty Ltd	Kyle Jackson	25/07/2025

Document Control for Job Number: BCP34HPEA

Document Status	Prepared By	Authorised By	Date
Draft Report	Sharon Rose	Kirsi Kauhanen	21/07/2025
Final Report	Sharon Rose	Kirsi Kauhanen	25/07/2025

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1. Introduction

1.1 Purpose

BCP Materials Pty Ltd (BCP) is proposing to extract sand on 34 Hair Place (Lot 1 on Diagram 70775) in North Boyanup (the property), Western Australia (Figure 1; Figure 2). This Weed and Dieback Management Plan (WDMP) has been prepared for the proposed operations as supporting documentation to accompany a Development Application (DA) and Extractive Industry Licence (EIL) application to Shire of Capel.

This WDMP is prepared in accordance with the *Biosecurity and Agriculture Management Act 2007* (BAM Act), the *Australian Weeds Strategy 2017-2027* developed by the Invasive Plants and Animals Committee (IPAC 2017), and the Dieback Working Group's *Best Practice Guidelines for Management of Phytophthora Dieback in Raw Material Industries* (the Guidelines) (DWG 2021). Consideration has also been given to the *Phytophthora Dieback Management Manual* (the Manual) produced by the Department of Biodiversity, Conservation and Attractions (DBCA, 2020) and the *Dieback Hygiene Guidelines* by South Coast Natural Resource Management (South Coast NRM 2013)

1.2 Scope and Objective

This WDMP has been developed to provide details of the existing environment and guidance around best management practices for weeds and *Phytophthora cinnamomi* (dieback) with the objective to minimise the risk of introduction and spread of weeds and dieback on the property.

The scope of this WDMP includes following:

- Describe the existing environment.
- Provide guidance to minimise spread of weeds and dieback within, to, and from the property.

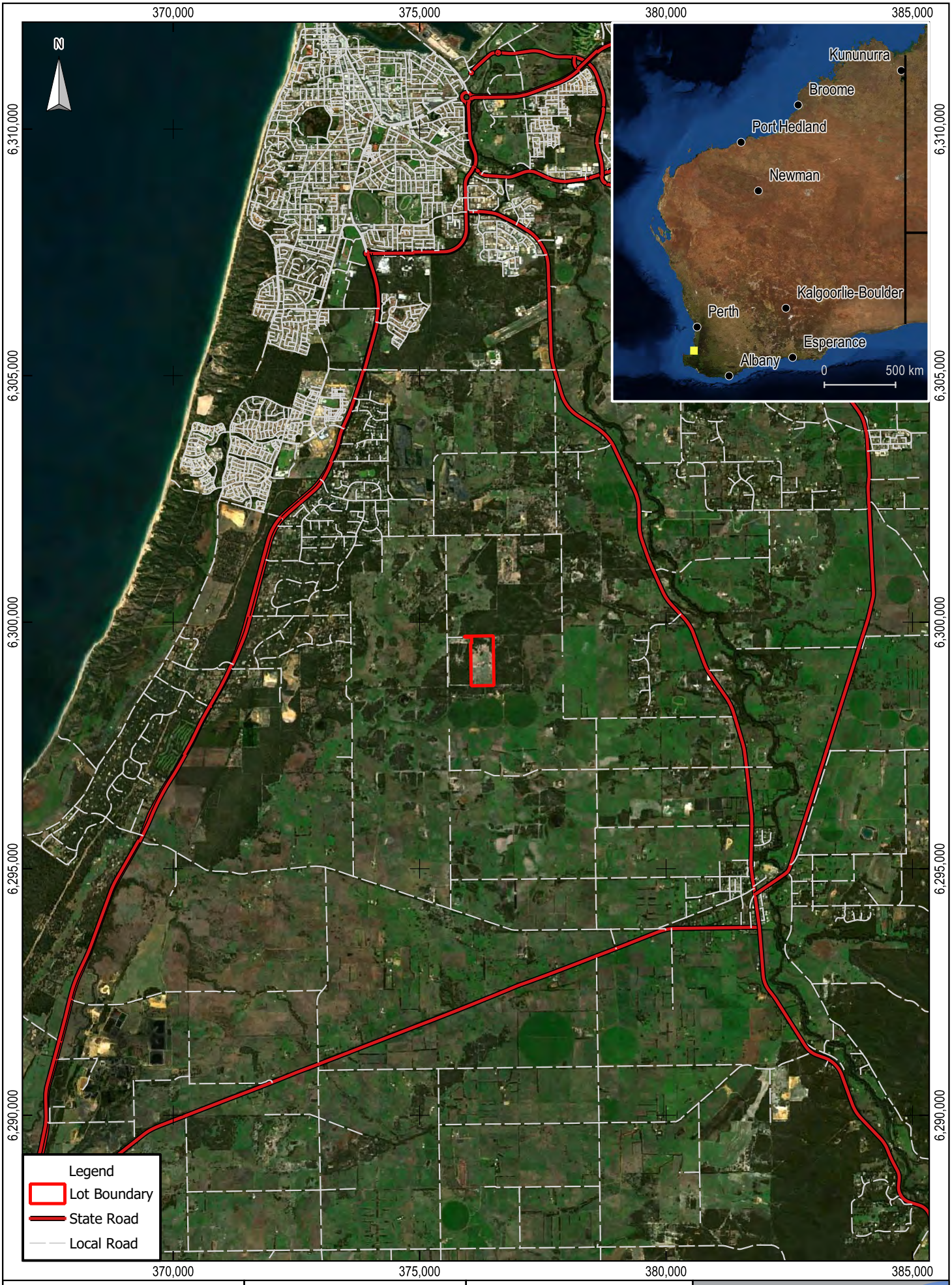

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Image: Copernicus Sentinel Data 2020
Grid: GDA94 / MGA zone 50
0 1 2 km

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 1

Location

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West Perth WA 6005
Australia
t: +61 8 9226 3166
info@mbsenvironmental.com.au
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MBS ENVIRONMENTAL

W:\BCP\Hair Pl\GIS Common\BCP Hair Pl Location Plan.qgz 08/06/2023

LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
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- Overhead Electricity (BYDA)
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- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
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583.4
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Datum Point
Buried Star Iron
Picket RL 22.74
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3m Bund Height
for Stage 1
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2.5m Bund Height
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3m Bund Height
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2ha
1
46.3995ha
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Existing Central Pivot
Infrastructure to be retained
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140
20
864.6
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4
2ha
1006.9
20
Existing Farm Shed
to be retained
3m Bund Height
for Stages 12 and 13
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11
2ha
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10
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3.5m Bund Height
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2ha
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for Stages 8,9 and 10
460.7
ROAD
20
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

element.
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2. Existing Environment

2.1 Climate

The climate of the project area is Mediterranean, with cool wet winters and hot dry summers. Bureau of Meteorology (BOM) long term average climate data for the closest meteorological station (Bunbury, approximately 12 km north of the property) is shown in Figure 3. The average annual rainfall is 730.4 mm, mean minimum temperatures between 7.3°C and 15.9°C, and mean maximum temperatures between 17.3°C and 30°C (BoM 2025).

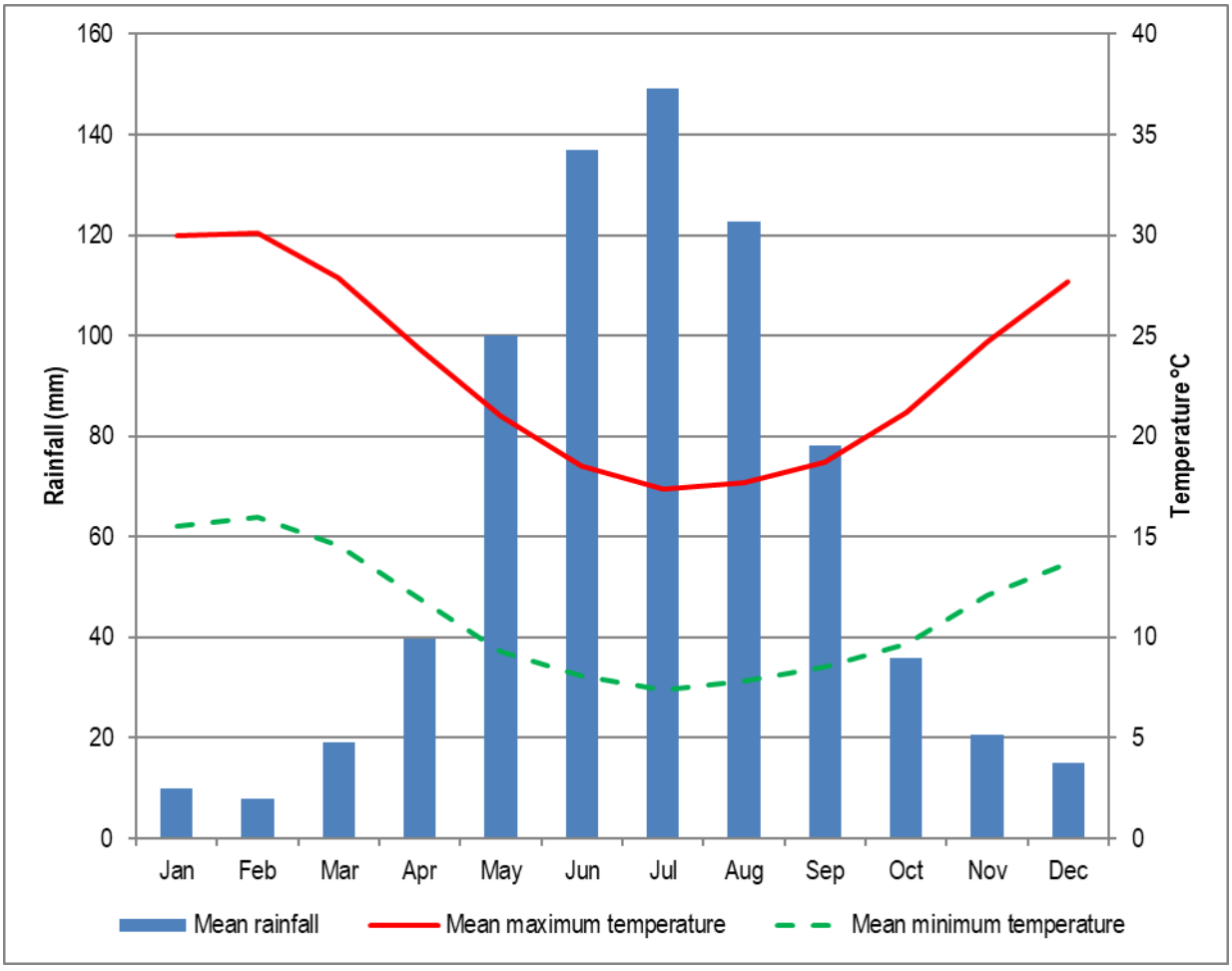


Figure 3: Long term Rainfall and Temperature Data 1995–2025 (BoM 2025)

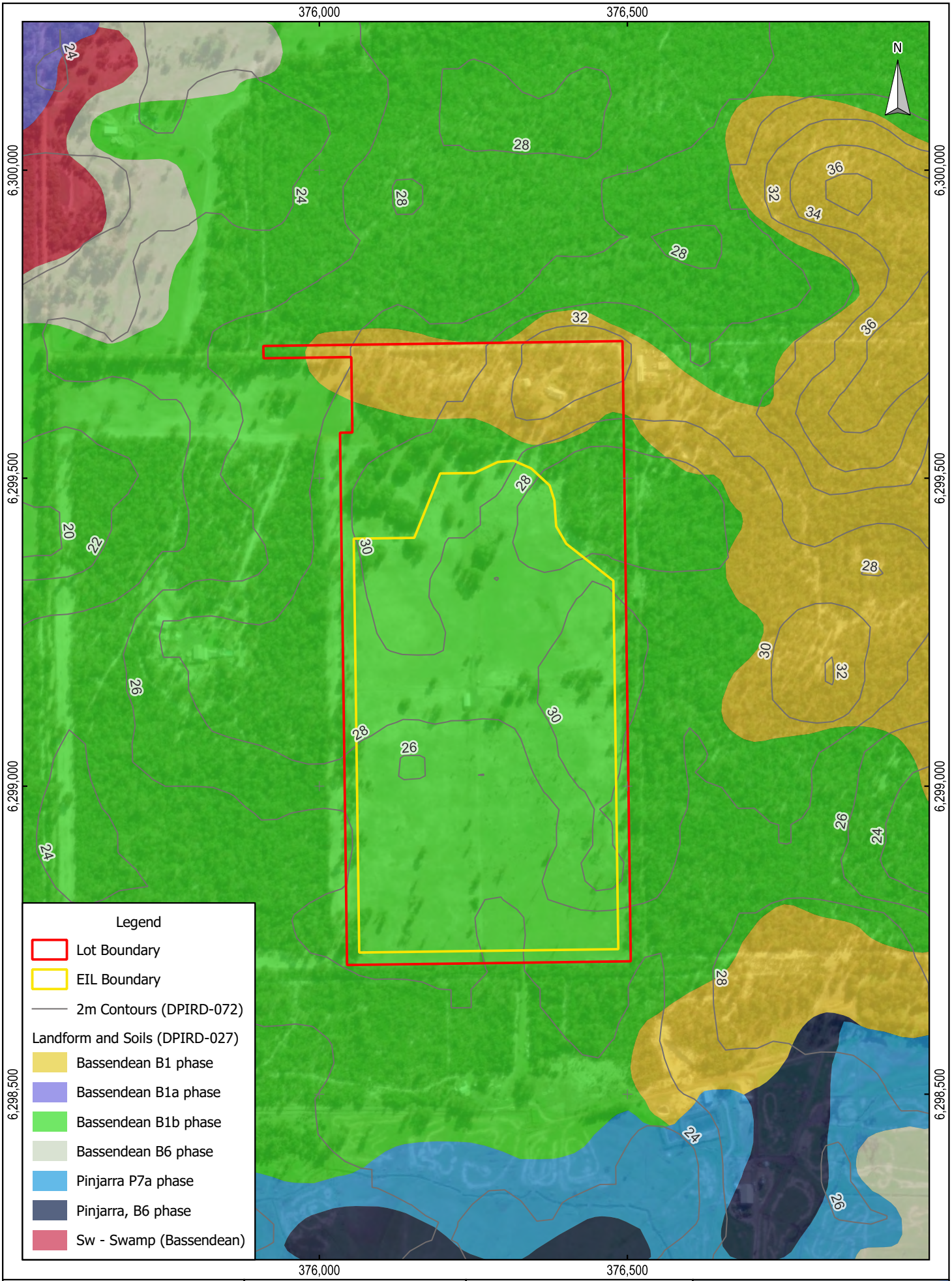
2.2 Landform and Soils

The property is located on the Swan Coastal Plain 12 km south of Bunbury and is part of the larger Perth Basin. The entirety of the property is situated within the Bassendean System (212Bs), as shown in Figure 4 (DPIRD 2022). The Bassendean System is characterised by sand dunes and sandplains with pale deep sand, semi-wet, and wet soil (DPIRD 2022). There are two soil landscape units within the property (Figure 4, Table 1), out of which the proposed extraction area intersects only the Bassendean B1b phase (DPIRD 2025).

The elevation of the property ranges from 22–40 m Australian Height Datum (AHD), with the highest elevation recorded on the hill located in the north-eastern part of the property. The extraction area is positioned to the south of this hill where the elevation ranges from 22–28 m AHD (Figure 2 and Figure 4).

Table 1: Soil and Landscape Units

Soil Type	Description	Within Extraction Area
Bassendean B1b Phase (212Bs_B1b)	Very low relief dunes of undulating sand plain with deep bleached grey sandy A2 horizons and pale yellow B horizons.	Yes
Bassendean B1 Phase (212Bs__B1)	Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m.	No



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Original Size: A4
Aerial: ESRI Satellite 25/05/2022
Grid: GDA94 / MGA zone 50
0 100 200 m

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 4

Landform and Soils

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MBS ENVIRONMENTAL

W:\BCP\Hair Pl\Management Plans\Weed and Dieback Mgt Plan\GIS\BCP_Hair Pl_Weed and Diaback Management Plan.qgz 25/08/2023 F4 Landform and Soils

2.3 Vegetation

Detailed and targeted vegetation surveys were conducted by Ecoedge Environmental Services (Ecoedge) in August and October 2023. The 46.4 ha survey area included approximately 9.9 ha of native vegetation, mostly in the northern part of the property outside the proposed EIL area. The remainder of the survey area had been cleared of native vegetation in the past, comprising pasture. The surveys identified 114 flora taxa, of which 22 were introduced weed species. The high proportion of weed species is attributed to the high level of land disturbance.

No flora listed as Threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or the *Biodiversity Conservation Act 2016* (BC Act) were found during the surveys. Eight individuals of *Verticordia attenuata* (Priority 3) and three individuals of *Acacia semitrullata* (Priority 4) were found in the northeast of the survey area.

2.3.1 Vegetation Condition

The survey area has been mapped as 78.6% cleared and the condition of the remaining native vegetation as shown in Table 2 (Ecoedge 2025).

Table 2: Vegetation Condition (Ecoedge 2025)

Condition	Area (ha)	Percentage (%)
Very Good	1.40	14.1
Good	5.63	56.8
Degraded	2.64	26.7
Completely Degraded	0.24	2.4
Total	**9.9**	**100.0**

2.3.2 Vegetation Units

Within the 9.9 ha of native vegetation, two Vegetation Units – Unit A and Unit B – are recognised within the survey area and are described as:

- Unit A (6.51 ha): Mid woodland of *Eucalyptus marginata* over low woodland of *Banksia attenuata* and *Xylomelum occidentale* over very open tall shrubland of *Kunzea glabrescens* over open low/mid shrubland of *Acacia pulchella* var. *glaberrima*, *Calytrix fraseri*, Dasypogon bromeliifolius, *Daviesia divaricata*, *Hibbertia hypericoides*, *Macrozamia riedlei*, *Stirlingia latifolia*, and *Xanthorrhoea brunonis* over very open forbland including *Caladenia flava*, *Drosera pallida*, *Chamaescilla versicolor*, *Phlebocarya ciliata*, *Stylidium brunonianum*, and *Trachymene pilosa* on grey or yellow-brown sand. Some parts of this unit qualify as the Banksia woodlands of the Swan Coastal Plain Threatened Ecological Community (TEC).
- Unit B (3.41 ha): Mid open forest of *Corymbia calophylla* (and occasionally *Eucalyptus marginata*) over open low woodland of *Xylomelum occidentale*, (occasionally also *Agonis flexuosa*, *Banksia attenuata*, *B. ilicifolia*, or *Nuytsia floribunda*) with patches of *Hibbertia cuneiformis* or *Kunzea glabrescens* tall shrubland over low/mid shrubland of *Daviesia divaricata*,

Jacksonia horrida, *Stirlingia latifolia*, and *Xanthorrhoea brunonis* over very open sedgeland of *Cyathochaeta avenacea* and *Mesomelaena tetragona* and open grassland including *Briza maxima* and *Ehrharta longiflora* on grey loamy sand. Some parts of this unit qualify as the Banksia woodlands of the Swan Coastal Plain TEC.

2.3.3 Threated Ecological Community

Vegetation units A and B meet criteria for 'Banksia Woodlands of the Swan Coastal Plain' TEC, which is listed under the EPCB Act as Endangered and is a Priority 3 ecological community in Western Australia. A total of 7.51 ha is mapped as TEC; however, the project has been deliberately designed so that none of this community falls within the extraction area (Figure 2). Weed and Dieback management measures outlined in Sections 3 and 4 will minimise any potential impacts on the TEC.

2.4 Land Use

The property is located approximately 12 km south of Bunbury in the Shire of Capel (Figure 2). In the Shire of Capel *Local Planning Scheme No. 8* (Shire of Capel 2023), the property is zoned Rural with two Special Control Areas (SCAs) applying: SCA6 Basic raw materials and SCA8 Environment. The property is zoned Rural in the Greater Bunbury Region Scheme (WA Gov 2014)

The property currently includes remnant native vegetation in the northern portion with one residential dwelling and associated garden. The rest of the property consists of previously cleared pastural land with scattered remnant trees and small patches of native vegetation (Figure 2). The cleared areas have been used for various rural pursuits, most recently grazing.

Surrounding properties are also zoned as Rural with a mix of agriculture, extractive industry, and remnant native vegetation (Shire of Capel 2023). Some of the surrounding properties also contain residential dwellings with gardens.

2.5 Current Weed Status

Due to the disturbance history of the site, the extraction area supports a range of weed species that are common in the local area. Twenty two weed species were identified within the flora survey area by Ecoedge (Table 3); however, this is likely to be an underestimate of the weed species present as the survey focussed on native vegetation areas. The recorded weed species included a single individual of the Declared Pest Plant **Gomphocarpus fruticosus* (Ecoedge 2025).

The past and current rural pursuits on the property are associated with a significant risk of introducing and spreading weeds across the property. As described earlier, the surrounding properties also support a range of rural land uses, including paddocks for grazing and hay production, sand extraction, residential dwellings and associated gardens, and bushland. Many of these landuses either involve weed species or they pose a risk for introducing and spreading weeds in the local area. Additionally, weeds can also be spread between properties by wind and by movement of local fauna (e.g. kangaroos and birds).

Table 3: Identified Weed Species (Ecoedge 2025)

Family	Species
Apocynaceae	*Gomphocarpus fruticosus*
Asteraceae	*Arctotheca calendula*
Asteraceae	*Cotula turbinata*
Asteraceae	*Hypochaeris glabra*
Asteraceae	*Hypochaeris radicata*
Asteraceae	*Sonchus oleraceus*
Asteraceae	*Ursinia anthemoides*
Cyperaceae	*Ficinia marginata*
Fabaceae	*Acacia iteaphylla*
Fabaceae	*Lupinus angustifolius*
Fabaceae	*Trifolium repens*
Geraniaceae	*Erodium botrys*
Geraniaceae	*Erodium cicutarium*
Iridaceae	*Romulea rosea*
Iridaceae	*Watsonia meriana*
Myrtaceae	*Eucalyptus globulus*
Phytolaccaceae	*Phytolacca octandra*
Poaceae	*Briza maxima*
Poaceae	*Ehrharta longiflora*
Poaceae	*Vulpia bromoides*
Polygonaceae	*Rumex acetosella*
Rubiaceae	*Galium murale*

2.6 Current Dieback Status

Phytophthora cinnamomi is present in locations around the globe that have a Mediterranean climate, including the southwest of Western Australia. There are over 140 species of *Phytophthora* worldwide, but the most commonly found and damaging species in the southwest is *Phytophthora cinnamomi* (dieback).

No formal dieback survey has been undertaken on the property; however, large parts of the property, including the proposed extraction area, are likely to be formally uninterpretable for dieback due to the level of historical disturbance and the lack of indicator species. The *Dieback Public Map* identifies the disturbed southern portion of the property is as unmappable with the area surrounding classed as 'low confidence infested' as of 2008 (South Coast NRM 2023). The vegetated area in the north and entire surroundings of the property are considered to have vegetation highly susceptible to dieback

(South Coast NRM 2023). Overall, this means the occurrence of dieback cannot be ruled out within the extraction area.

Dieback is spread through infected soil. The infected soil can be spread by fauna movement, surface water runoff, soil movement on sloping surfaces, and spores; however, the biggest spreader of dieback is human activity and movement. Infected soil can contaminate vehicles, footwear, and equipment that then moves to an uninfected area, introducing the pathogen. Additionally, the transport of infected soil as import or export material from a site can contribute to dieback spread. The rural activities described earlier as occurring on the property and on the surrounding properties have a significant risk of introducing and spreading dieback.

3. Weed Management

BCP recognises the importance of effective management of weeds during extractive operations and subsequent revegetation. Weeds can be spread or introduced to an area via a number of circumstances, such as wind borne seed, vehicle movements, rain runoff, fauna activity, movement of soil, dust, and introduction of materials – such as soil and mulch – from external sources.

As the land use of the property will remain pastoral, the weed management of the extractive operations will mainly aim to prevent the introduction of declared weeds, minimise spread of the more common weeds, and instigate the monitoring and control of weeds during rehabilitation.

A licenced and experienced weed control contractor (contractor) will be engaged to conduct weed control within the extraction area. The contractor will undertake control using an appropriate method (chemical or manual as required) for the weed types identified. A record of location, date, approximate size of treatment area, and control methods will be maintained by the contractor and submitted to the Site Manager after each weed control event.

Weed control will be conducted before and during the extraction works on an as needed basis to minimise weed occurrence in the operational and stockpiling areas. In addition to broad spectrum herbicides, weed-specific herbicides will be used where appropriate to target broadleaf, grass, geophyte, and woody weeds. Any instances of **Gomphocarpus fruticosus* or other Declared Pest Plants will be controlled as a matter of priority to prevent flowering and seed set.

The following sections describe actions that will be implemented at the property for the purposes of weed management.

3.1 Weed Prevention

The site operator will implement the following measures to reduce weed spread and prevent, as far as practicable, the introduction of new weed species to and the export of weeds from the property:

- All vehicles, plant, and equipment entering or exiting the property will be clean and free of weeds.
- Topsoil will be removed from the extraction area and stockpiled (gradually in stages).
- Following removal of topsoil, the movement of vehicles and machinery will be limited to the areas free of topsoil to limit the spread of weeds.
- Exported quarry products will be free of weeds.
- Materials imported to site will be free of weeds.
- Weed control will be conducted in operational areas (e.g. trafficable areas and sand stockpiles) to ensure these areas remain weed free.
- Weed control of topsoil stockpiles will be undertaken to minimise seed set.
- During rehabilitation activities, weed control will be undertaken as necessary to minimise weed spread and to prevent weeds from compromising the end land use.

- A record of location, date, approximate size of treatment area, and control methods will be maintained.
- Weed presence and control will be monitored (Section 3.3).

The requirements for rehabilitation and associated weed control will be detailed in a separate rehabilitation plan. At this stage, it is anticipated that pasture will be returned to the extraction area and native revegetation outside the extraction area. It is expected that rehabilitation weed control will, as a minimum, include control prior to planting/seeding once topsoil has been re-spread. This is typically undertaken in late autumn/early winter depending on commencement of seasonal rains. This will enable any weeds germinating from the soil seed bank to be targeted. Ongoing weed control following planting/seeding will also occur as need be to allow for the pasture and native species to become established.

3.2 Declared Weed Control

**Gomphocarpus fruticosus* (Narrow leaf cotton bush) is a declared pest in Western Australia with a C3 (management) control category under the *Biosecurity and Agriculture Management Act 2007* (BAM Act) . One individual was identified by Ecoedge in 2023; however, further occurrences of the species can occur as it has wind borne seed and is considered to be an aggressively competitive weed. If further individuals are identified, they should be removed promptly to prevent flowering and seed set.

Flowering occurs November to March and fruits develop from February to November (DBCA 2025). Recommended control methods include manually hand pulling plants of practicable size, ensuring to remove root material. If plants are too large to manually remove, use a 1.5% glyphosate foliar spray or 50% glyphosate mixture doing the cut and paint method (DBCA 2025).

Plate 1: *_Gomphocarpus fruticosus_ plant, flower, and fruit (CSIRO 2021)

3.3 Monitoring

3.3.1 Weed Status Monitoring

The weed status of the property will be monitored biannually during operations to determine whether introduction or spread of weeds is occurring and to identify required weed control. Monitoring should occur four to six weeks after the first significant autumn/early winter rains and in mid to late spring; however, passive monitoring should occur as a part of general operations and weed control organised if the need is identified.

3.3.2 Weed Control Monitoring

Areas requiring weed control will be checked within two weeks before the commencement of weed control (either as part of biannual monitoring or separately) and then six to eight weeks after weed control has been conducted to gauge effectiveness and determine if follow up control is required.

4. Dieback Management

Based on Section 2.6, the occurrence of dieback on the property cannot be ruled out. For the purposes of dieback management, the extraction area and the previously cleared and/or heavily disturbed areas adjacent to it, will be considered potentially dieback infected. Vegetation outside these areas will be considered potentially dieback free and will become a no-go zone for the extractive operations, apart from the access road from the entrance to the extraction area.

Dieback will be managed in accordance with the best practice guidelines and manuals (Section 1.1), and will include the following measures:

- Earth-moving machinery will be cleaned of soil and vegetation prior to entering and leaving site.
- Soil will only be moved in dry conditions.
- No dieback affected material will be brought to site.
- Machinery and other vehicles will remain within the extraction area to minimise the risk of spreading disease.
- Drainage will be contained within the extraction area, there will be no surface water runoff from the extraction area.
- Personnel will be informed that the site may be infested with dieback and that dieback can spread on vehicles, machinery, equipment, footwear, and tools, and instructed on clean down requirements.
- Topsoil will be stockpiled and respread as close to its source area as possible.
- Potential customers will be advised that the material exported from site cannot be considered dieback free.
- Entry to and exit from the site will be limited to designated locations.
- Trucks exporting sand from the site will be required to have their load properly covered.
- Ensure that, as far as can be known, any soil, mulch, fill, or other material brought on site is sourced responsibly and free of dieback.
- Topsoil will be removed and stockpiled from the extraction area (gradually in stages), and the subsequent movement of vehicles and machinery will be limited to the areas free of topsoil.
- Vegetation clearing and topsoil removal and stockpiling will only be undertaken in dry conditions.
- Existing and new personnel will be informed of dieback prevention measures and be required to meet them.
- Unauthorised access to the extraction site will be managed through fencing and lockable gates.

- Signage regarding unauthorised entry and 'clean on entry' requirements will be placed at the gates.
- Trafficable areas and material stockpiles areas will be maintained well drained.
- No soil from the extraction area will be placed outside of the approved operational boundary.

5. Roles and Responsibilities

Roles and responsibilities with respect to weed and dieback management are outline in Table 4.

Table 4: Roles and Responsibilities

Role	Responsibilities
EIL Licensee	• Responsible for overall weed and dieback management within operations. • Will provide information for site personnel and truck drivers on weed and dieback management objectives and measures to be undertaken on site (prevention, monitoring, and mitigation). • Responsible for scheduling monitoring of weeds. • Responsible for engagement and supervision of contractors. • Responsible for site access security and appropriate signage. • Responsible for monitoring and maintaining measures outlined in Sections 3 and 4. • Responsible for record keeping.
All personnel	• Will be familiar with weed and dieback management objectives. • Will implement measures to prevent weeds as outlined in Section 3.1. • Will implement any measures required to prevent dieback spread as outlined in Section 4. • Responsible for reporting any weed or dieback management issues to EIL Licensee.

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Appendix G – Dust Management Plan

34 HAIR PLACE, NORTH BOYANUP

DUST MANAGEMENT PLAN

July 2025

Prepared for:

Prepared by:

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34 HAIR PLACE, NORTH BOYANUP

DUST MANAGEMENT PLAN

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1. Introduction

1.1 Purpose

BCP Materials Pty Ltd (BCP, the applicant) are applying for a Development Application (DA) and Extractive Industry Licence (EIL) for the extraction of sand on 34 Hair Place (Lot 1 on Diagram 70775) in North Boyanup (the property) within the Shire of Capel (Figure 1 and Figure 2). The Shire of Capel requires that a Dust Management Plan (DMP) is prepared for EIL purposes.

This DMP was prepared in accordance with the Department of Environment and Conservation's (DEC) *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities* (DEC 2011). This DMP should be read in conjunction with the DA report.

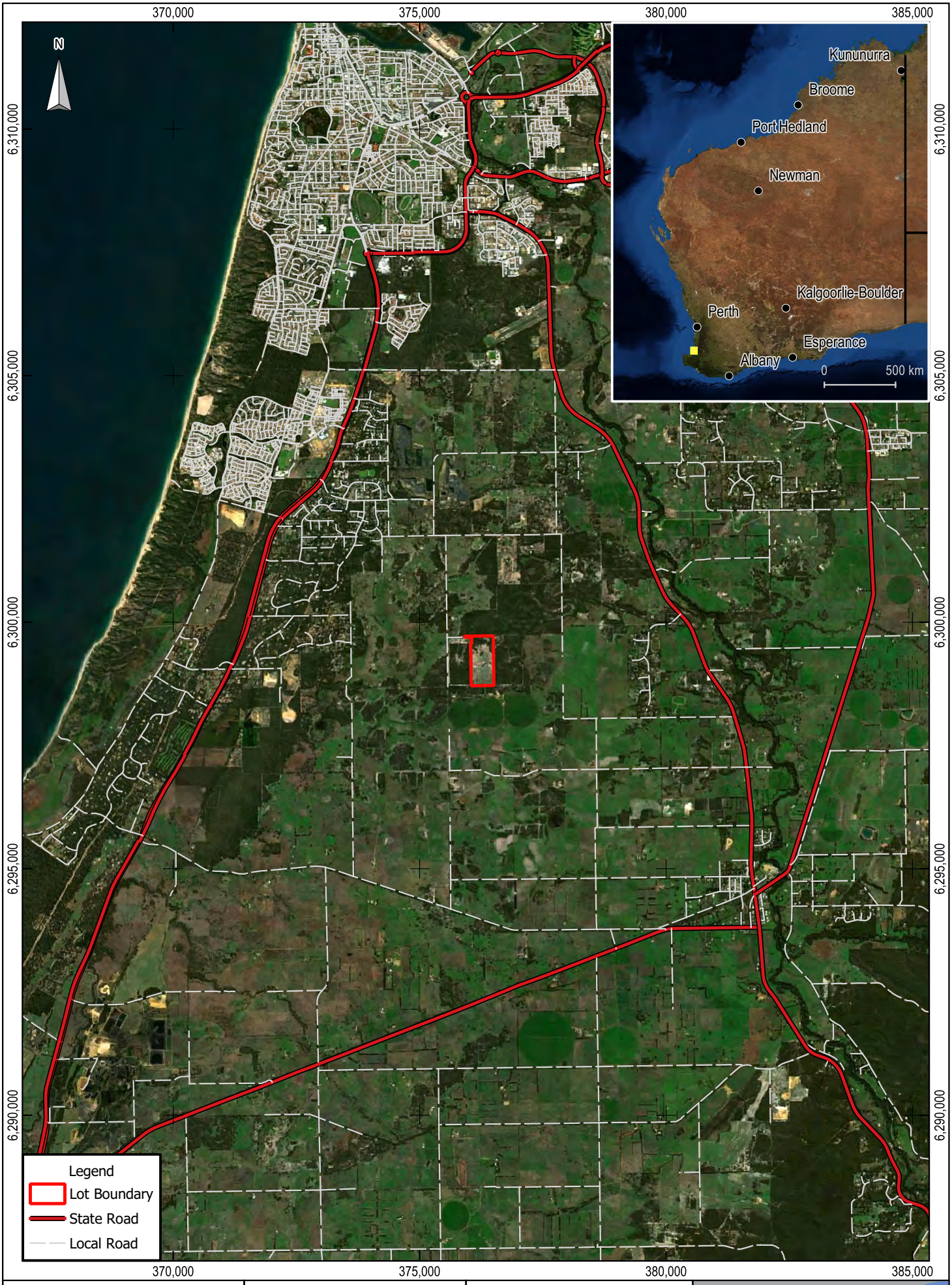
1.2 Scope

The scope of this DMP includes the following:

- Description of the existing environment and identification of sensitive receptors.
- Identification of potential sources of dust associated with the operations.
- Identification of roles and responsibilities.
- A site risk assessment for dust.
- Description of appropriate dust prevention, monitoring, and mitigation measures.
- A dust complaints process.

1.3 Objective

The objective of this DMP is to minimise dust emissions generated from the sand extraction operations.



Scale: 1:100000
Original Size: A4
Image: Copernicus Sentinel Data 2020
Grid: GDA94 / MGA zone 50
0 1 2 km

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 1

Location

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West Perth WA 6005
Australia
t: +61 8 9226 3166
info@mbsenvironmental.com.au
www.mbsenvironmental.com.au

MBS ENVIRONMENTAL

W:\BCP\Hair Pl\GIS Common\BCP Hair Pl Location Plan.qgz 08/06/2023

LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- Underground Electricity (BYDA)
- Overhead Electricity (BYDA)
- Telecommunications (BYDA)
- Stage Boundary (approx 2ha)
- Topsoil Stockpile Area (approx 500m²)
- Driveway (Unsealed)
- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
153
HAIR PLACE
20
142.2
583.4
122.6
20
Datum Point
Buried Star Iron
Picket RL 22.74
256
3m Bund Height
for Stage 1
1
2ha
3m Bund Height
for Stage 15
15
2ha
2.5m Bund Height
for Stage 2
2
1.91ha
3m Bund Height
for Stage 14
14
2ha
1
46.3995ha
3
2ha
Existing Central Pivot
Infrastructure to be retained
2
210.3
140
20
864.6
13
2ha
4
2ha
1006.9
20
Existing Farm Shed
to be retained
3m Bund Height
for Stages 12 and 13
12
2ha
5
2ha
11
2ha
6
2ha
10
2ha
7
2ha
3.5m Bund Height
for Stage 7
9
2ha
8
2ha
3.5m Bund Height
for Stages 8,9 and 10
460.7
ROAD
20
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

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2. Existing Environment

2.1 Climate

The climate of the project area is Mediterranean, with cool wet winters and hot dry summers. Bureau of Meteorology (BOM) long term average climate data for the closest meteorological station (Bunbury, approximately 12 km north of the property) is shown in Figure 3. The average annual rainfall is 730.4 mm, mean minimum temperatures between 7.3°C and 15.9°C, and mean maximum temperatures between 17.3°C and 30°C (BoM 2025).

Long term wind roses for Bunbury (BoM 2025) indicate prevailing winds comprise morning easterlies and afternoon westerlies (Appendix A).

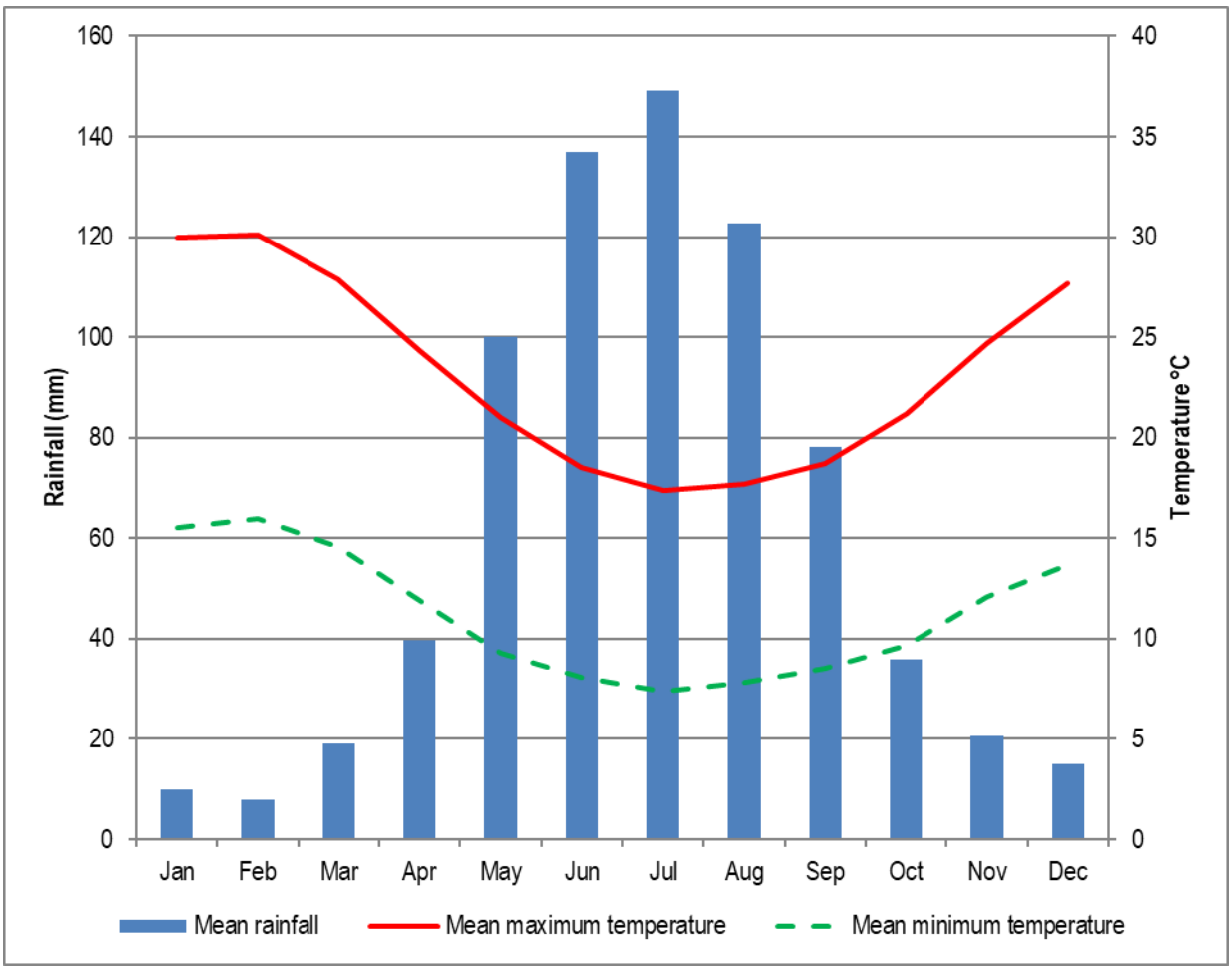

Figure 3: Long term Rainfall and Temperature Data 1995–2025 (BoM 2025)

2.2 Land Use

The property is located approximately 12 km south of Bunbury in the Shire of Capel (Figure 1). In the Shire of Capel *Local Planning Scheme No. 8* (Shire of Capel 2023), the property is zoned Rural with two Special Control Areas (SCAs) applying: SCA6 Basic raw materials and SCA8 Environment. The property is zoned Rural in the Greater Bunbury Region Scheme (WA Gov 2014).

The property has a total area of 46.39 ha, of which the proposed EIL area covers 30.16 ha. The majority of the property is cleared and has been used for a range of rural pursuits. There is a residential dwelling in the northeast corner surrounded by remnant native vegetation and some planted vegetation. The proposed EIL area includes scattered native vegetation across paddocks, fence lines, access tracks, and a shed in the centre of the property.

2.3 Landform and Soils

The proposed EIL area is located on a gently undulating plain with elevations of 22 to 28 m Australian Height Datum (AHD). Outside of the proposed EIL area, landform is mildly steeper, ranging from 22 mAHD and rising to a maximum of 40 mAHD in the north-east corner (Figure 2).The property is located in the Bassendean System (212Bs) (DPIRD 2022), which is described as having sand dunes and sandplains with pale deep sand, semi-wet and wet soil that supports Banksia-paperbark woodlands and mixed heaths. Most of the Lot falls within the B1b Phase, which is characterised by very low relief dunes of undulating sand plain with deep bleached grey sandy A2 horizons and pale yellow B horizons (DPIRD 2025). The northern section of the property, which is outside of the proposed EIL area, falls within the Bassendean B1 Phase, described as being banksia dominant with extremely low to very low relief dunes, undulating sandplain, and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m (DPIRD 2025).

2.4 Vegetation

Detailed and targeted vegetation surveys were conducted by Ecoedge Environmental Services (Ecoedge) in August and October 2023. The 46.4 ha survey area included approximately 9.9 ha of native vegetation, mostly in the northern part of the property outside the proposed EIL area. The remainder of the survey area had been cleared of native vegetation in the past, comprising pasture.

No flora listed as Threatened under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or the *Biodiversity Conservation Act 2016* (BC Act) were found during the surveys. Eight individuals of *Verticordia attenuata* (Priority 3) and three individuals of *Acacia semitrullata* (Priority 4) were found in the northeast of the survey area, outside the proposed EIL area. 7.51 ha of native vegetation within the property but outside of the EIL area is listed as 'Banksia Woodlands of the Swan Coastal Plain' Threatened Ecological Community ((Ecoedge 2025)).

2.5 Sensitive Receptors

Lot 1 and the surrounding properties are zoned Rural (Shire 2023) with a mix of agriculture, extractive industry, and remnant native vegetation. The primary sensitive receptors in the area are residential dwellings within 1 km of the extraction area. The closest receptor is a residential dwelling to the west on Lot 2, located 210 m from the proposed EIL area. Sensitive receptors are summarised in Table 1 and the closest ones are shown in Figure 2. It is noted that there is a sand extraction site on Lot 141 located to the south of the property.

Table 1: Sensitive Receptors within 1 km of Extractive Operations

Property Details	Distance and Direction from Operations	Type of Receptor
Lot 2 (D070776)	210 m west	Residential dwelling
Lot 141 (DP232768)	216 m south	Residential dwelling — there is a sand extraction site on this property.
Lot 140 (DP232768)	256 m northeast	Residential dwelling
Lot 150 (DP232768)	403 m south	Residential dwelling
Lot 161 (DP232768)	670 m northwest	Residential dwelling

3. Potential Sources of Dust

The proposed project layout is shown in Figure 2. Potential sources of dust associated with the sand extraction operations include the following:

- Vegetation clearing, topsoil stripping, and stockpiling.
- Sand extraction, stockpiling, and loading activities.
- Wind borne dust from exposed surfaces, including cleared land, topsoil and resource stockpiles, and tracks.
- Vehicle movements on internal unpaved tracks.
- Loading of haulage trucks.
- Poorly contained truck loads.
- Rehabilitation works, including final contouring, ripping, and spreading of topsoil and other materials.

4. Site Risk Assessment

Dust potentially generated as part of the sand extraction operations is expected to be free of contaminants and pollutants. The adverse effects of dust generation from the site would typically be 'nuisance dust'.

A risk assessment was prepared based on DEC's *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities* (DEC 2011). The risk assessment for the proposed extractive operations is provided in Appendix B. It calculates the risk of dust impacts and the need for management controls based on the nature of the site and the proposed operations as well as the proximity of sensitive receptors and prevailing winds. Prevailing summer winds are morning easterlies and afternoon westerlies (Appendix A) and these have been taken into consideration in the risk assessment.

A site classification score of 396 was calculated for the onsite works placing this development in the high end of the 'Low Risk' category (between 200 and 399 points). Based on the Low Risk classification, the following are typically required (DEC 2011):

- Contingency plan detailing activities to be undertaken should dust impacts occur.
- Monitoring requirements.

These are addressed in the Section 5.

The main sensitive receptor is the closest residential dwelling located 210 m to the west of the extraction area. The residence is well-screened by vegetation and is not downwind of the site under prevailing summer afternoon winds. The other nearby residences are located further away (216 m, 256 m, 403 m, and 670 m) from the extractive operations and are also screened by vegetation. Therefore, dust impacts to these residences are not likely to be significant with dust management actions in place (see Section 5).

5. Dust Management Actions

5.1 Dust Prevention

The Site operator will implement the following measures to prevent dust generation from site activities:

- Vegetation clearing and topsoil removal will only be undertaken on days of conducive wind strength and conditions to ensure windblown dust is minimised.
- Vegetation clearing and ground disturbance will be gradual in nature and proceed in stages.
- Revegetation to pasture will also be gradual in nature and proceed in stages, closely following the completion of sand extraction.
- Topsoil stockpiles will be no greater than 2 m in height and other stockpiles will not exceed 4 m in height.
- A vehicle speed limit of 20 km/h will be implemented across the site.
- A water cart with a capacity greater than 10,000 L will be available and will undertake preventative watering of access tracks, working areas, and stockpiles during dry periods.
- Trucks leaving the site will be required to have their load covered and tailgates and drawbars clear of dust producing material prior to entering Hair Place. Appropriate signage will be erected at the site exit advising truck drivers to cover loads and clean their vehicle as required prior to entering public roads.

5.2 Dust Monitoring and Mitigation

The Site operator will implement the following measures to monitor and mitigate dust generation from site activities:

- Visual monitoring of dust generation from the operations will be undertaken on an ongoing basis.
- Should excessive dust generation be observed onsite and there is a risk of dust being blown off site, additional watering of dust sources with the water cart will be organised. Alternative dust controls, such as chemical dust suppressants or dust fencing, may also be considered for more persistent sources of dust.
- When weather conditions negate the effectiveness of dust prevention and mitigation measures and dust continues to be blown off site, the dust generating activities will cease until conditions improve and compliance with this DMP can be achieved.

5.3 Dust Complaints

The dust complaints process is outlined as follows:

- A sign will be erected at the entrance to the extraction site to advise the public on the appropriate contact in the event of a complaint.
- In the event of receiving a complaint, the EIL licensee will complete a Dust Complaint Form (Appendix C), investigate, and resolve complaint within four hours.
- A copy of the completed Dust Complaint Form will be forwarded to the Shire of Capel for their records.
- If required, a review of the DMP will be undertaken to refine dust prevention, monitoring, and mitigation measures.

6. Roles and Responsibilities

Roles and responsibilities with respect to dust management are outlined in Table 2.

Table 2: Roles and Responsibilities

Role	Responsibilities
EIL Licensee	• Will have overall responsibility for the dust management of the operations. • Will provide information for site operators and truck drivers on dust management objectives, and dust management measures to be undertaken on site (prevention, monitoring, and mitigation). • Will be responsible for resolving any persistent dust management issues. • Will be responsible for administering the dust complaints process.
All personnel	• Will be familiar with potential sources of dust associated with own role and how to minimise dust generation. • Will implement the dust prevention, monitoring and mitigation measures as described in this plan and as advised by the EIL Licensee. • Will be responsible for reporting any persistent dust management issues to the EIL Licensee.

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APPENDIX A:
WIND ROSES

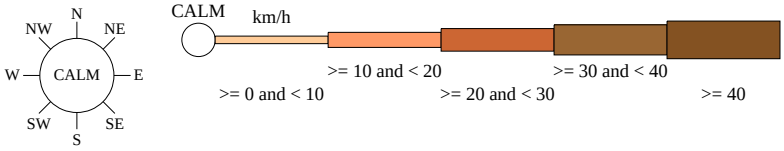
Rose of Wind direction versus Wind speed in km/h (22 Nov 1995 to 10 Aug 2024)

Custom times selected, refer to attached note for details

BUNBURY

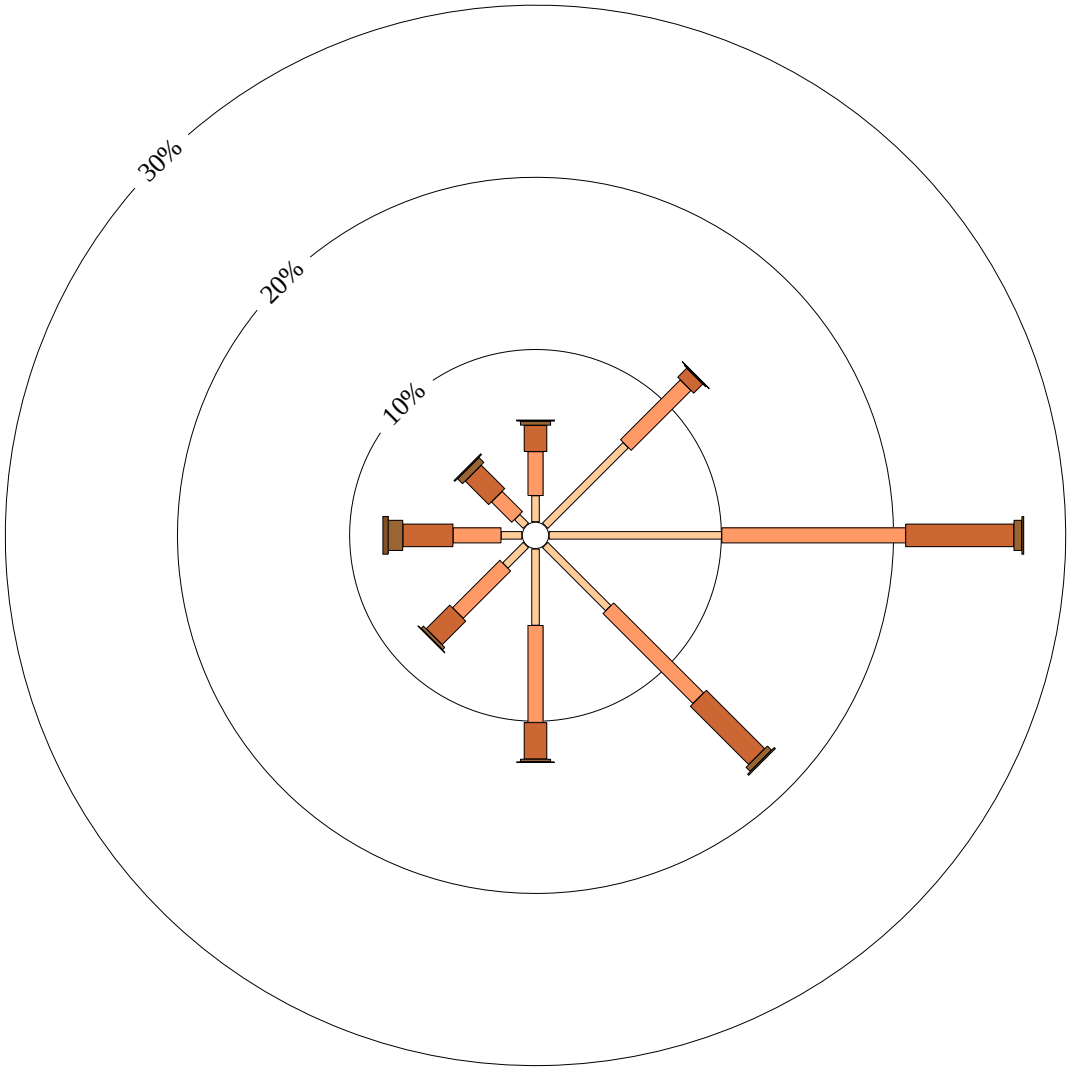
Site No: 009965 • Opened Nov 1995 • Still Open • Latitude: -33.3567° • Longitude: 115.6447° • Elevation 5.m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



9 am
10378 Total Observations

Calm 4%



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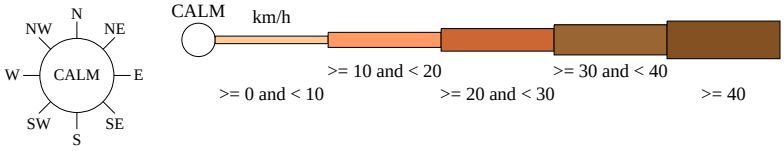
Rose of Wind direction versus Wind speed in km/h (22 Nov 1995 to 10 Aug 2024)

Custom times selected, refer to attached note for details

BUNBURY

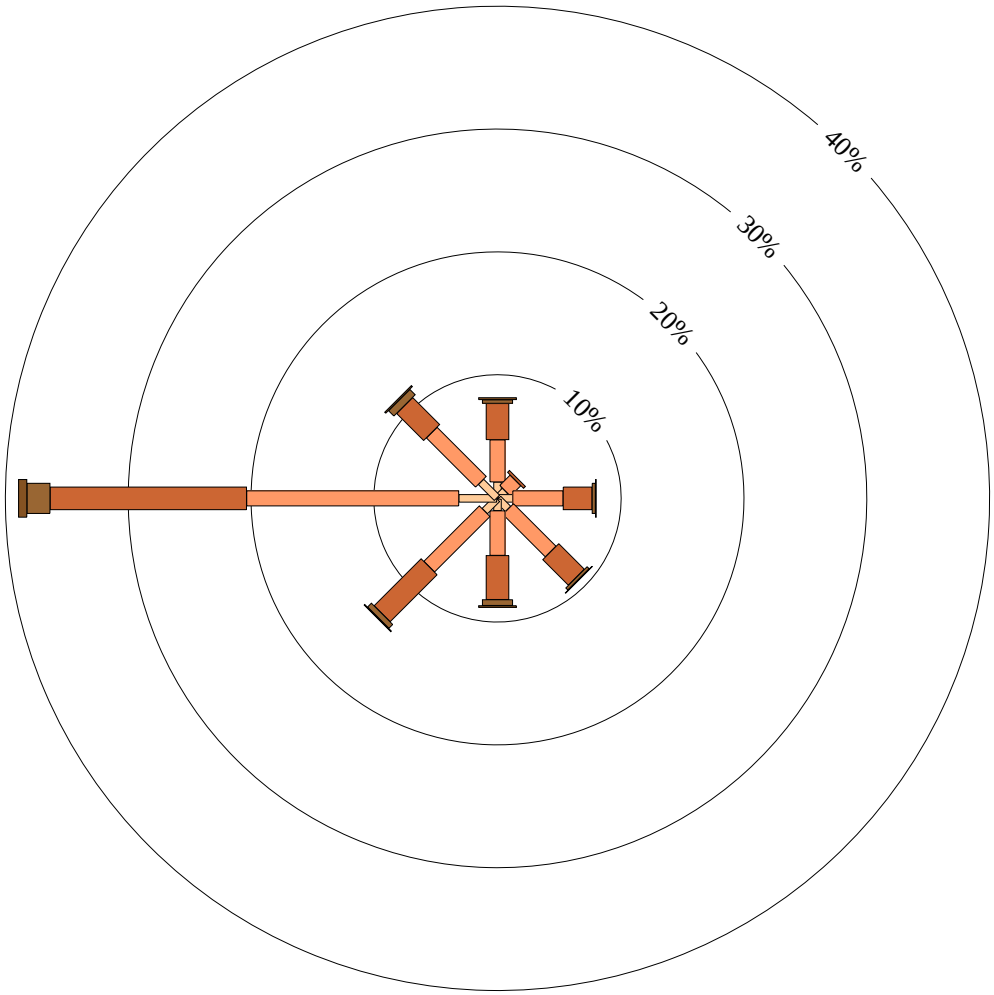
Site No: 009965 • Opened Nov 1995 • Still Open • Latitude: -33.3567° • Longitude: 115.6447° • Elevation 5.m

An asterisk (*) indicates that calm is less than 0.5%.
Other important info about this analysis is available in the accompanying notes.



3 pm
10356 Total Observations

Calm *



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APPENDIX B

APPENDIX B:
RISK ASSESSMENT

MBS ENVIRONMENTAL

Site Risk Assessment/Classification for Activities Generating Uncontaminated Dust

Table A1: Part A – Nature of Site

Item	Score Options				Allocated Score
1. Nuisance potential of soil, when disturbed.	Very low.....**1**	Low.....**2**	Medium.....**4**	High.....**6**	4
2. Topography and protection provided by undisturbed vegetation.	Sheltered and screened.....**1**	Medium screening...**6**	Little screening.....**12**	Exposed and wind prone.....**18**	6
3. Area of site disturbed by the works.	Less than 1 ha.....**1**	Between 1-5 ha.....**3**	Between 5-10 ha.....**6**	More than 10 ha.....**9**	3
4. Type of work being done.	Roads or shallow trenches.....**1**	Roads, drains, and medium depth sewers...**3**	Roads, drains, sewers and partial earthworks.....**6**	Bulk earthworks and deep trenches.....**9**	9
				TOTAL score for Part A	**22**

Table A2: Part B – Proximity of site to other land uses

Item	Score Options				Allocated Score
1. Distance of other land uses from site.	More than 1 km.....**1**	Between 1 km and 500 m.....**6**	Between 100 m and 500 m.....**12**	Less than 100 m.....**18**	12
2. Effect of prevailing wind direction (at time of construction) on other land uses.	Not affected.....**1**	Isolated land uses affected by one wind direction.....**6**	Dense land uses affected by one wind direction.....**9**	Dense/sensitive land uses highly affected by prevailing winds.....**12**	6
				TOTAL score for Part B	**18**

APPENDIX C:

DUST COMPLAINT FORM

DUST COMPLAINT FORM

Property: 34 Hair Place, North Boyanup

Complaint date: _____

Complaint time: _____

Received by: _____

Complainant's Details

Name: _____

Telephone: _____

Affected address: _____

_____

Complaint Details (attach report if insufficient space)

_____

_____

_____

_____

Action Taken (attach report if insufficient space)

_____

_____

_____

_____

Actions recorded by: _____

Date: _____

Copy to Shire of Capel: ☐ (tick)

Appendix H – Environmental Management Plan

34 HAIR PLACE, NORTH BOYANUP

ENVIRONMENTAL MANAGEMENT PLAN

August 2025

Prepared for:

Prepared by:

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MBS ENVIRONMENTAL

34 HAIR PLACE, NORTH BOYANUP

ENVIRONMENTAL MANAGEMENT PLAN

Distribution List:

Company	Contact Name	Date
BCP Materials Pty Ltd	Kyle Jackson	5/08/2025
Element Advisory	Daniel Lewis	5/08/2025

Document Control for Job Number: BCP34HPEA

Document Status	Prepared By	Authorised By	Date
Draft Report	Sharon Rose	Kirsi Kauhanen	25/07/2025
Final Report	Sharon Rose	Kirsi Kauhanen	5/08/2025

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Executive Summary

BCP Materials Pty Ltd (BCP) is proposing to extract sand on 34 Hair Place (Lot 1 on Diagram 70775) in North Boyanup (the property), approximately 12 km south of Bunbury in the Shire of Capel. The purpose of this document is to provide supporting environmental information for the Development Application (DA) and the associated Extractive Industry Licence (EIL) application that will be submitted to the local government authority, Shire of Capel. This document describes the environmental values of the site, potential environmental impacts, their management, and includes an indicative rehabilitation plan. This Environmental Management Plan should be read in conjunction with the DA application.

The property is 46.40 ha in size and the proposed extraction area covers 30.16 ha, of which the majority is long term cleared pasture with scattered remnant native vegetation. The main environmental impact of the project is the proposed clearing of approximately 1.3 ha of native vegetation, comprising small patches and individual trees and shrubs, in Good, Degraded, and Completely Degraded condition (Ecoedge 2025) The proposed clearing will require a Native Vegetation Clearing Permit (NVCP) from the Department of Water and Environmental Regulation (DWER). The proposed extraction area boundary has been delineated so that it focuses on the cleared and disturbed areas. Stockpiles and turnaround areas are proposed to be placed within the extraction area and, therefore, will require no additional vegetation clearing. No Threatened or Priority Flora or Ecological Communities are present within the proposed extraction area. Better quality vegetation in the northern portion of the property, including a Threatened Ecological Community and two Priority Flora species, will be retained.

The clearing will remove 1.3 ha of Black Cockatoo foraging habitat and 37 trees with a diameter at breast height (DBH) of more than 50 cm. No hollows suitable for black cockatoo breeding or roosting sites were recorded. The habitat is suitable for Western Ringtail Possums, but none were recorded (Western Ecological 2023).

The proposed sand extraction project has been designed to minimise environmental impacts and the majority of the potential impacts can be effectively managed through the measures detailed in this management plan. The significance of the impacts of the proposed clearing and the management/mitigation/offset measures required will be determined by DWER as part of the NVCP process.

At this stage, it is expected that the EIL area will be rehabilitated to pasture. Native revegetation requirements will be determined in consultation with DWER as part of the NVCP process. At this stage it is anticipated that an area at least the size of the native vegetation clearing requirement will be rehabilitated to native vegetation on the property.

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APPENDICES

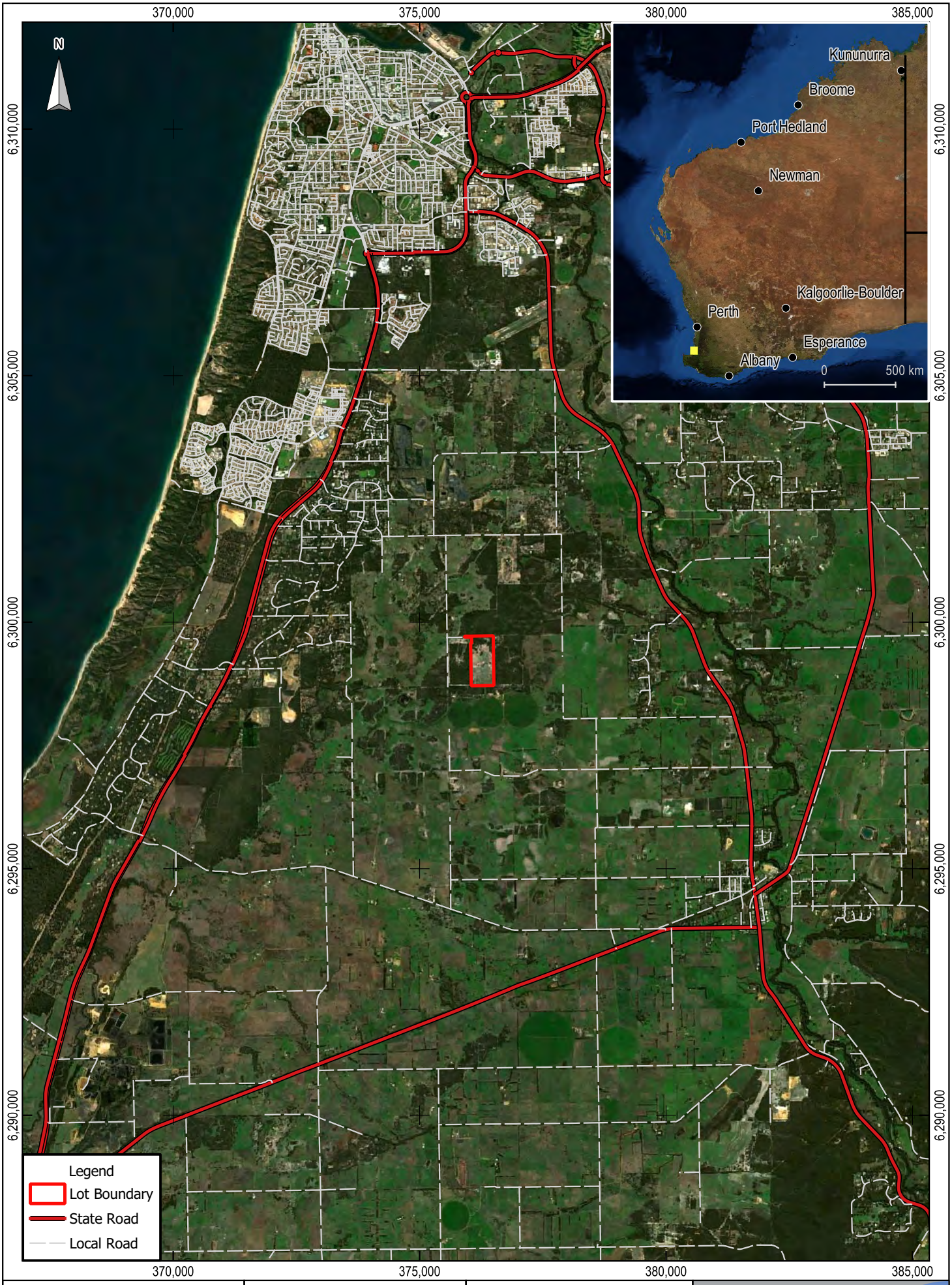
Appendix A : AHIS Search

1. Introduction

BCP Materials Pty Ltd (BCP) is proposing to extract sand on 34 Hair Place (Lot 1 on Diagram 70775) in North Boyanup (the property) located within the Shire of Capel and approximately 12 km south of Bunbury, Western Australia (WA) (Figure 1 and Figure 2). The property totals 46.40 ha in size and the proposed extraction area covers 30.16 ha (Figure 3).

The purpose of this document is to provide supporting environmental information for the Development Application (DA) and the associated Extractive Industry Licence (EIL) application that will be submitted to the Shire of Capel. This document describes the environmental values of the site, potential environmental impacts and their management, and includes an indicative rehabilitation plan. This document should be read in conjunction with the DA application. The current works and excavation plan is shown in Figure 3 and land re-establishment plan in Figure 4.

The project will require a Native Vegetation Clearing Permit (NVCP) from the Department of Water and Environmental Regulation (DWER); therefore, clearing impacts and their management and mitigation will be refined with DWER as part of the NVCP process.



Scale: 1:100000
Original Size: A4
Image: Copernicus Sentinel Data 2020
Grid: GDA94 / MGA zone 50
0 1 2 km

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 1

Location

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info@mbsenvironmental.com.au
www.mbsenvironmental.com.au

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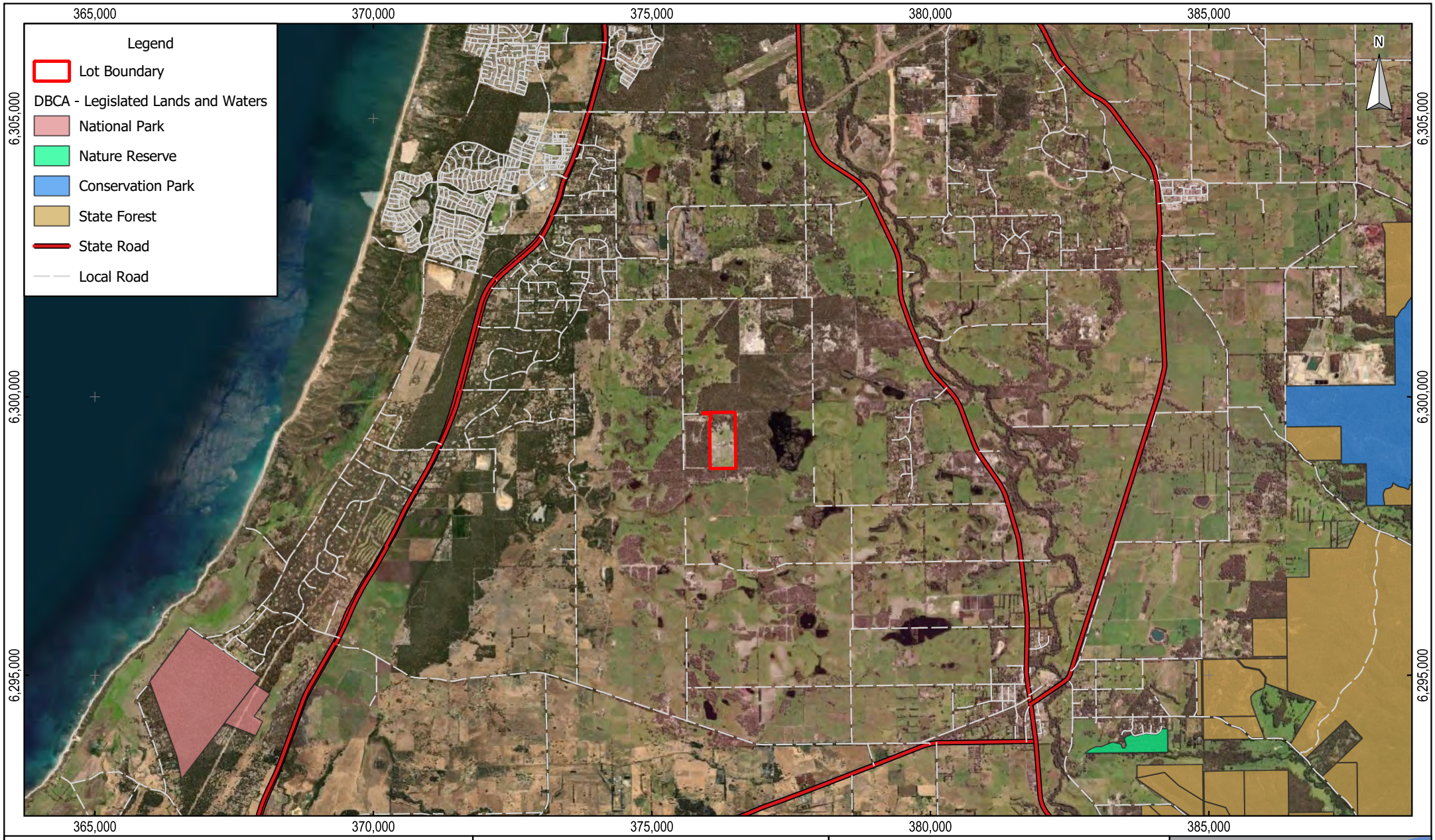
W:\BCP\Hair Pl\GIS Common\BCP Hair Pl Location Plan.qgz 08/06/2023



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Original Size: A4

Grid: GDA94 / MGA zone 50 (EPSG:28350)

0 1 2 km

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 2

Local Context

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MBS ENVIRONMENTAL

W:\BCP\Hair Pl\Management Plans\Environmental Mgt Plan\GIS\BCP_Hair Pl_Environmental Management Plan.qgz 08/06/2023 F2 Local Context

LEGEND

- Subject Area (46.3995ha)
- Existing Industry License (30.16ha)
- Existing Contours / Survey (Harley Dykstra)
- Ground Water Contours (JDA Consultant Hydrologists 19/12/22)
- Underground Electricity (BYDA)
- Overhead Electricity (BYDA)
- Telecommunications (BYDA)
- Stage Boundary (approx 2ha)
- Topsoil Stockpile Area (approx 500m²)
- Driveway (Unsealed)
- Temporary Noise Bund *(Height varies as per Plan)*

NOTES:
Calculated Pit Volume: 588,991m³ (Harley Dykstra)

398
153
HAIR PLACE
20
142.2
583.4
122.6
20
Datum Point
Buried Star Iron
Picket RL 22.74
256
3m Bund Height
for Stage 1
1
2ha
3m Bund Height
for Stage 15
15
2ha
2.5m Bund Height
for Stage 2
2
1.91ha
3m Bund Height
for Stage 14
14
2ha
1
46.3995ha
3
2ha
Existing Central Pivot
Infrastructure to be retained
2
210.3
140
20
864.6
13
2ha
4
2ha
1006.9
20
Existing Farm Shed
to be retained
3m Bund Height
for Stages 12 and 13
12
2ha
5
2ha
11
2ha
6
2ha
10
2ha
7
2ha
3.5m Bund Height
for Stage 7
9
2ha
8
2ha
3.5m Bund Height
for Stages 8,9 and 10
460.7
ROAD
20
216.2
150
141

Works and Excavation Plan

Lot 1 (34) Hair Place, North Boyanup

Date: 23 July 2025 Scale: 1:4000 @ A3 1:2000 @ A1 File: **22-368 CP01A** Staff: DL GW Checked: DL

0 80m

element.
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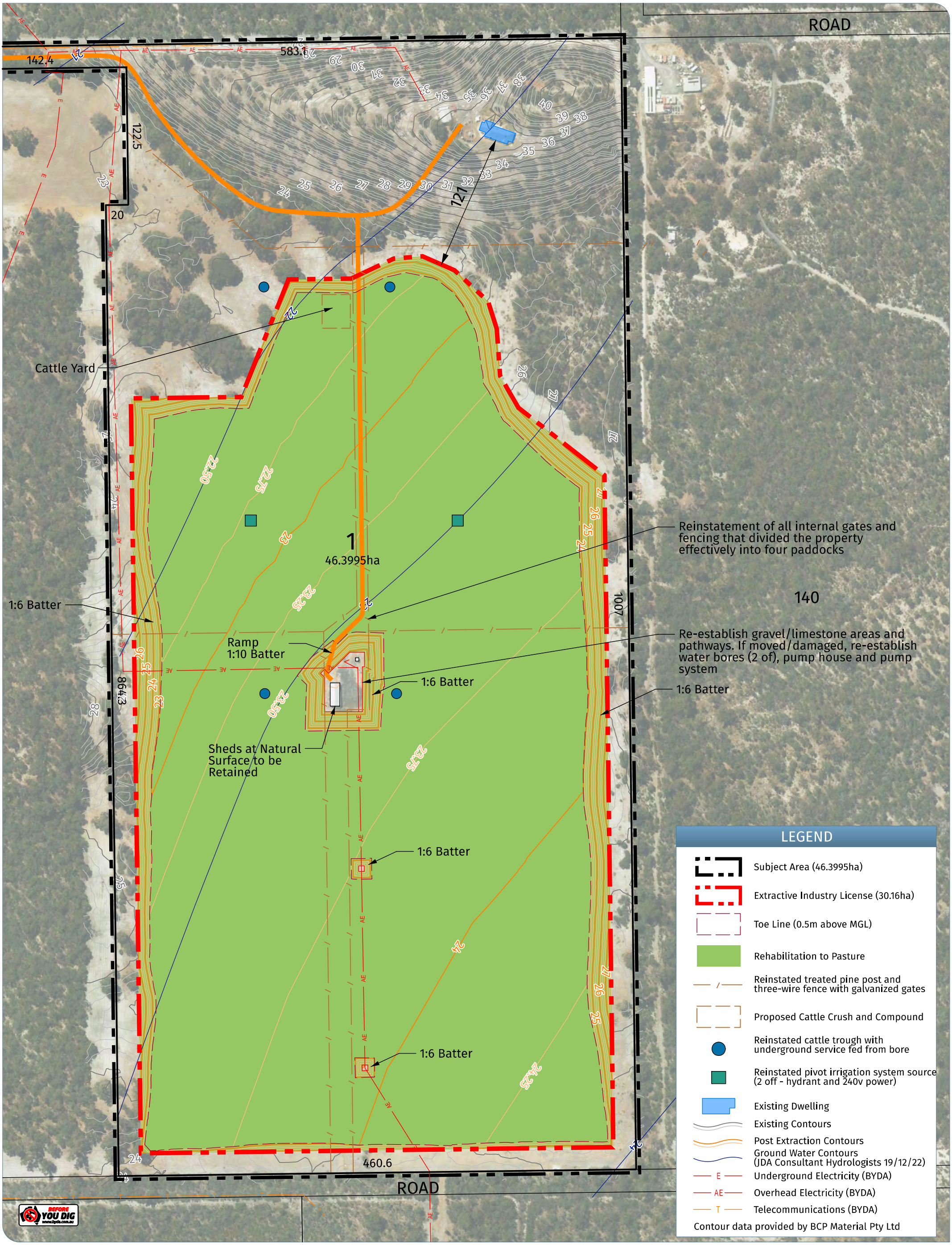

LAND RE-ESTABLISHMENT PLAN

Lot 1 (No. 34) Hair Place, NORTH BOYANUP

Plan No.	23424-03
Date	30/07/24
Drawn	NP
Checked	DPJ
Revision	B
Scale	1:3000@A3

0 40m 80m

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PLANNING & SURVEY SOLUTIONS

2. Key Legislation

2.1 Environmental Protection Act 1986 (WA)

The *Environmental Protection Act 1986* (EP Act) is administered by DWER and the Department of Biodiversity, Conservation and Attractions (DBCA). The EP Act provides for conservation, preservation, protection, enhancement, and management of the environment and for matters incidental to or connected with it. The EP Act establishes head powers to provide mechanisms for the development of Environmental Protection Policies, the referral and assessment of proposals (environmental impact assessments), the control of pollution, and enforcement. The EP Act also provides for the Environmental Protection Authority, which is a statutory authority and is the primary provider of independent environmental advice to Government. DWER administers the clearing provisions of the EP Act. Applications for a NVCP are assessed by DWER and decisions are made to grant or refuse the application in accordance with the EP Act.

2.2 Biodiversity Conservation Act 2016 (WA)

The *Biodiversity Conservation Act 2016* (BC Act) replaces the *Wildlife Conservation Act 1950* and provides for the ongoing protection of Western Australian flora, fauna, and ecological communities.

2.3 Environment Protection and Biodiversity Conservation Act 1999 (Cwlth)

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) is the Australian Government's central piece of environmental legislation. The EPBC Act aims to protect Matters of National Environmental Significance. Under the EPBC Act, the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) lists, for example, threatened species, migratory species, and threatened ecological communities. All development proposals are required to consider potential obligations under the EPBC Act.

3. Existing Environment

3.1 Bioregional Context

The property is located within the Swan Coastal Plain Bioregion classified by the Interim Biogeographic Regionalisation for Australia and described as a low lying coastal plain, mainly covered by Banksia or Tuart woodlands over sandy soils with paperbark prevalent in swampy areas (Thackway and Cresswell 1995).

The Swan Coastal Plain Bioregion is divided into two subregions, the Dandaragan Plateau (SWA01) and Perth (SWA02), of which the proposed EIL area is located within the Perth subregion. This subregion is comprised of colluvial and aeolian sands, alluvial river flats, and coastal limestone. Native vegetation varies from Heath and/or Tuart woodlands on limestone, Banksia and Jarrah woodlands on Quaternary marine dunes of various ages, and Marri on colluvial and alluvials. This subregion also includes a complex series of seasonal wetlands (Mitchell et al. 2002). The primary land use associated with this subregion includes dry land agriculture, conservation, and crown reserve, as well as urban and rural residences (Mitchell et al. 2002).

3.2 Climate

The climate of the project area is Mediterranean, with cool wet winters and hot dry summers. Bureau of Meteorology (BOM) long term average climate data for the closest meteorological station (Bunbury, approximately 12 km north of the property) is shown in Figure 5. The average annual rainfall is 730.4 mm, mean minimum temperatures between 7.3°C and 15.9°C, and mean maximum temperatures between 17.3°C and 30°C (BoM 2025).

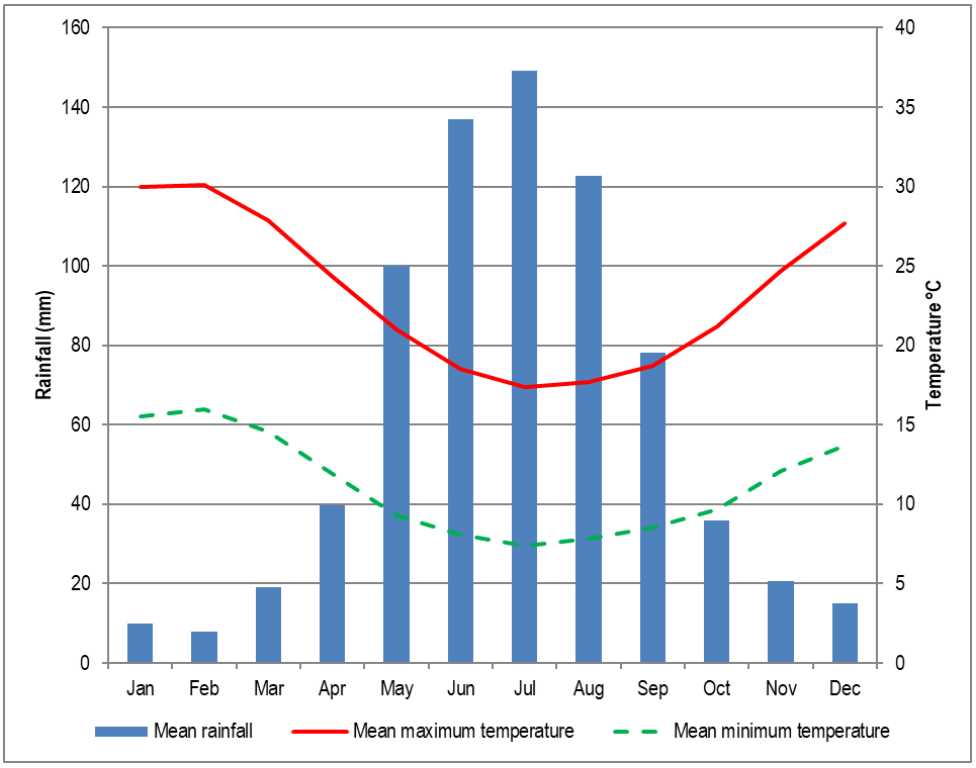


Figure 5: Meteorological Station 9965 Climate Statistics 1995–2025 (BoM 2025)

3.3 Current Land Use

The property is zoned as 'Rural' in the Shire of Capel Town Planning Scheme No. 8 and is located in Special Control Area (SCA) 6.1 - Basic Raw Materials and SCA8 - Environment (Shire of Capel 2025). The property is located within a mapped strategic basic raw material area for sand (Shire 2023).

The property currently includes remnant native vegetation in the northern portion with one residential dwelling and associated garden. The rest of the property consists of previously cleared pastural land with scattered, disturbed areas of remnant trees and small patches of native vegetation (Figure 3). The property has been cleared for several decades, with the earliest available aerial photo from 1996 showing approximately the current extent of clearing (Landgate 2025). The cleared areas have been used for various rural pursuits, most recently grazing.

Surrounding properties are also zoned as 'Rural' with a mix of agriculture, extractive industry, and remnant native vegetation (Figure 2) (Shire 2023). The closest residential dwellings outside Lot 1 are located approximately 210 m west, 216 m south, and 256 m northeast of the proposed extraction area. Apart from these dwellings and the dwelling on Lot 1, no other residential dwellings are located within 400 m of the property.

3.4 Soils and Topography

The property is located on the Swan Coastal Plain 12 km south of Bunbury and is part of the larger Perth Basin. The entirety of the property is situated within the Bassendean System (212Bs) (DPIRD 2022) as shown in Figure 6. The Bassendean System is characterised by sand dunes and sandplains with pale deep sand, semi-wet, and wet soil (DPIRD 2022).

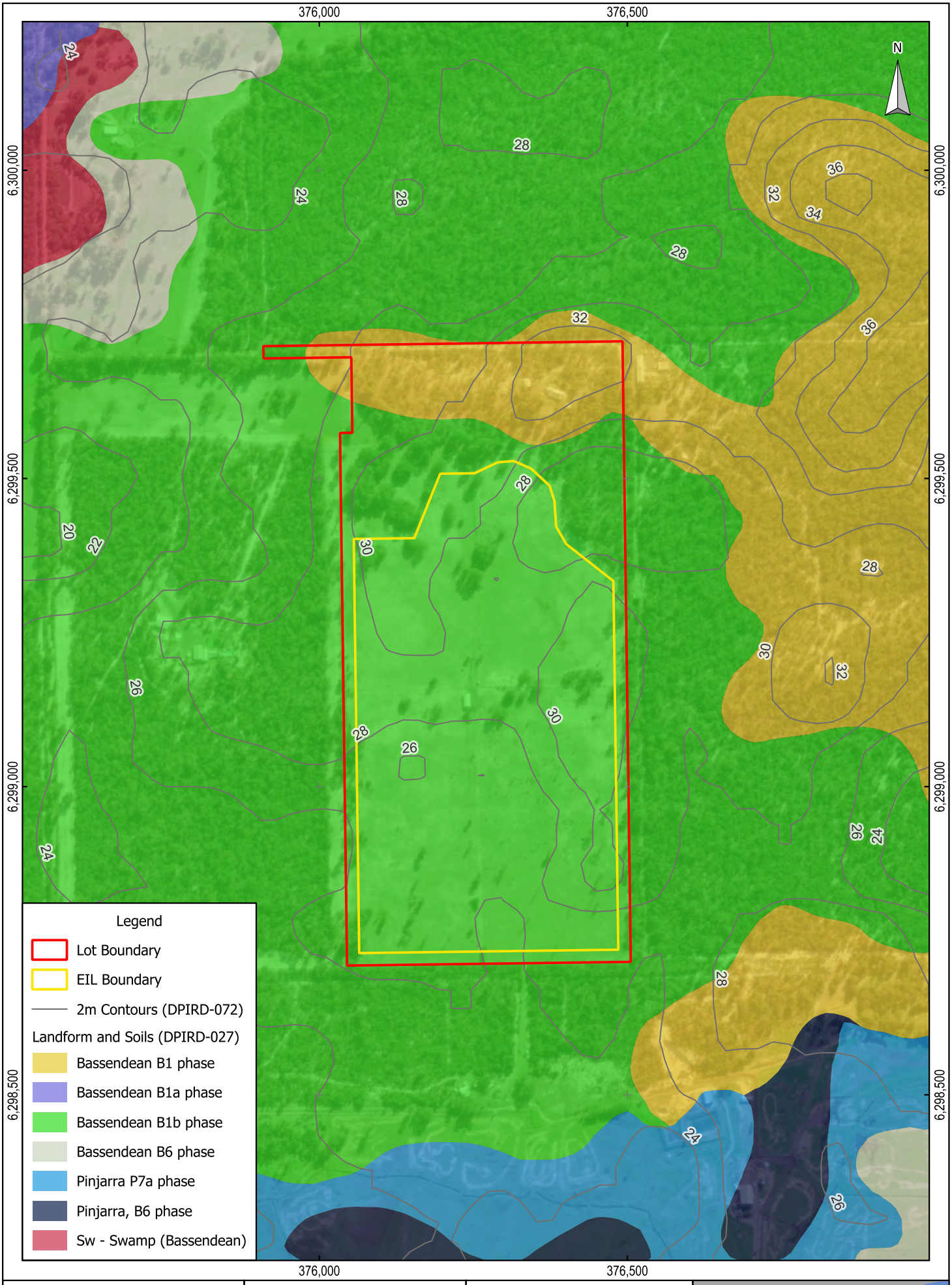
There are two soil landscape units within the property (Figure 6; Table 1) (DPIRD 2025), out of which the proposed extraction area intersects only the Bassendean B1b phase.

The elevation of the property ranges from 22 m to 40 m Australian Height Datum (AHD), with the highest elevation recorded on the hill located in the north-eastern part of Lot 1. The extraction area is positioned to the south of this hill where the elevation ranges from 24 m to 28 m (Figure 3 and Figure 6).

The entirety of the proposed extraction area is mapped as having a moderate to low risk of acid sulphate soils (DWER 2017).

Table 1: Soil Landscape Units

Soil Type	Description	Within Extraction Area
Bassendean B1b Phase (212Bs_B1b)	Very low relief dunes of undulating sand plain with deep bleached grey sandy A2 horizons and pale yellow B horizons.	Yes
Bassendean B1 Phase (212Bs__B1)	Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m.	No



Scale: 1: 8,000
Original Size: A4
Aerial: ESRI Satellite 25/05/2022
Grid: GDA94 / MGA zone 50
0 100 200 m

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 6

Landform and Soils

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\\mbssvr\working\BCP\Hair Pl\Management Plans\Environmental Mgt Plan\GIS\BCP_Hair Pl_Environmental Management Plan.qgz 01/09/2023 F6 Landform and Soils

3.5 Groundwater

The property lies within the Bunbury Groundwater Area, proclaimed under the *Rights in Water and Irrigation Act 1914* (DWER 2018b). The unconfined 'Perth - Superficial Swan' aquifer overlies the deep 'Perth - Yarragadee South' aquifer (DoW 2024).

JDA Consultant Hydrologists undertook groundwater monitoring on the property between July and November 2022 and analysed data from nearby DWER monitoring bores. Maximum groundwater levels within the property were estimated to vary from 21 m AHD in the northwest to 24 m AHD in the southeast (JDA 2022). Within the proposed extraction area, the maximum groundwater levels are modelled to vary between approximately 22 m ADH in the northwest to 24 m AHD in the southeast (JDA 2022) (Figure 3).

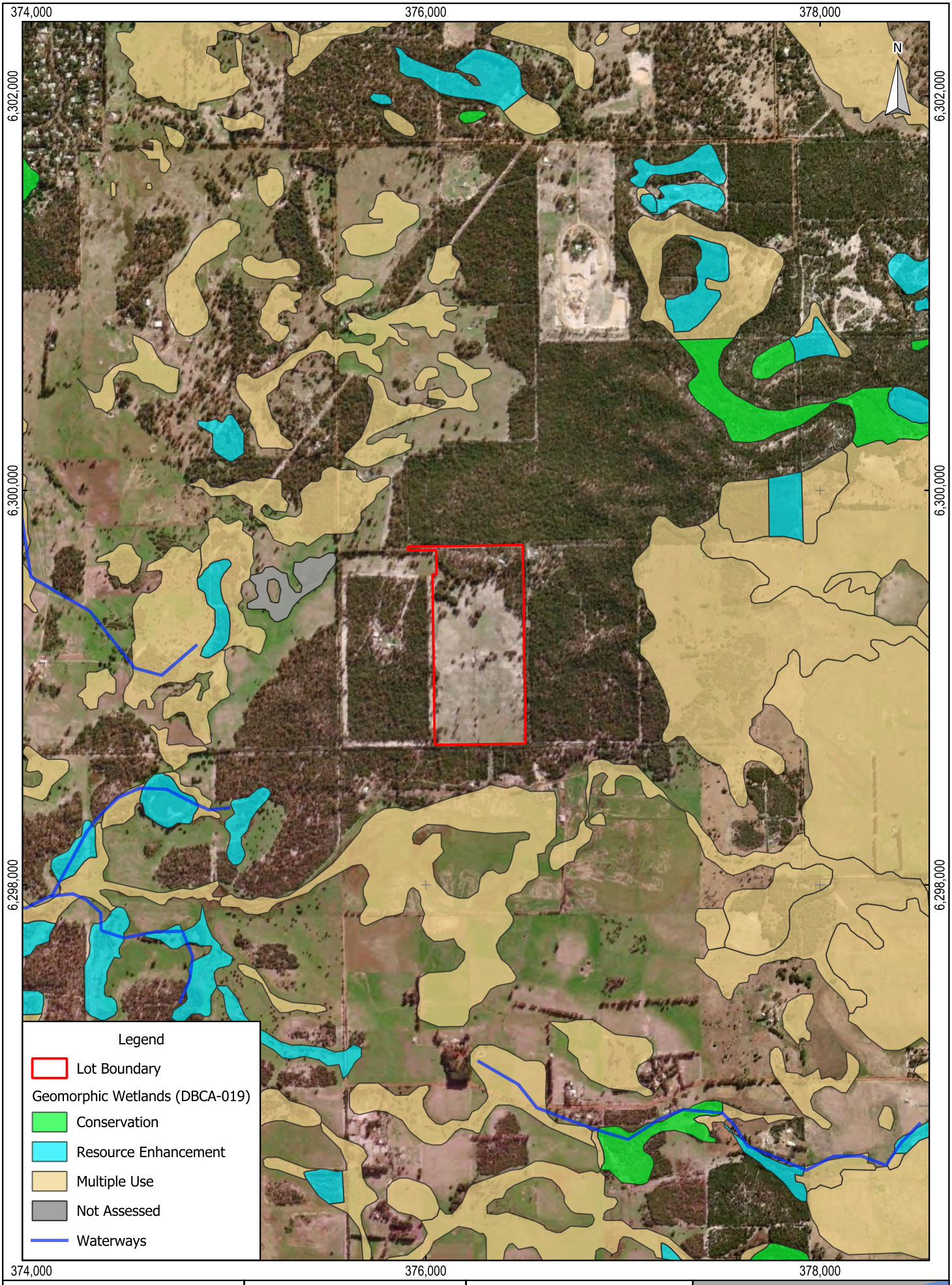
3.6 Surface Water

The property lies within the Capel River Water Management Area and in the Five Mile Brook sub management area of the Five Mile Brook Catchment (DWER 2018a). The property does not fall within a RIWI Surface Water Proclamation Area (DWER 2018c) and does not intersect a Public Drinking Water Source Area (DWER 2023).

There are no watercourses or drainage lines within the property or the proposed extraction area (Figure 7). No wetlands intersect the property, and none are present within 200 m of the proposed extraction area (Figure 7) (DBCA 2023). The closest Conservation category wetland is located approximately 1.4 km northwest from the proposed extraction area.

3.7 Environmentally Sensitive Areas

Currently, there are no environmentally sensitive areas mapped on the property (DWER 2021), with the closest being approximately 1.1 km to the northeast of the property.



Scale: 1: 25,000
Original Size: A4
Aerial: ESRI Satellite 25/05/2022
Grid: GDA94 / MGA zone 50
0 250 500 m

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 7

Wetlands and Waterways

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West Perth WA 6005
Australia
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www.mbsenvironmental.com.au

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\\mbssvr\working\BCP\Hair Pl\Management Plans\Environmental Mgt Plan\GIS\BCP_Hair Pl_Environmental Management Plan.qgz 01/09/2023 F7 Wetlands and Waterways

3.8 Flora and Vegetation

3.8.1 Regional Context

The property is situated within the Perth (SWA02) subregion of the Swan Coastal Plan (SWA) biogeographic region (DCCEEW 2025).

There are two sets of broad scale (1:250,000) vegetation mapping available for this part of the South West. The first set maps the entirety of the property, including the proposed extraction area as Bassendean 1000 (DPIRD 2021; Shepherd et al. 2002), described as: Woodland / Low woodland / Low forest or Woodland.

The second set maps the entirety of the property as Bassendean Complex-Central and South (DBCA, n.d.; Heddle et al. 1980) (Webb et al. 2016). This complex is described as: Vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of Jarrah to *Eucalyptus todtiana* (Pricklybark) in the vicinity of Perth.

3.8.2 Vegetation Type

Detailed and targeted vegetation surveys were conducted by Ecoedge Environmental Services (Ecoedge) in August and October 2023 (Ecoedge 2025). The majority of the vegetation within the proposed EIL area is unimproved pasture with scattered native trees and shrubs, mostly Jarrah (*Eucalyptus marginata*), Marri (*Corymbia calophylla*), Peppermint (*Agonis flexuosa*), and Spearwood (*Kunzea glabrescens*) and a handful of Candlestick Banksia (*Banksia attenuata*). There are also small patches of vegetation where some native understorey species remain. Outside the proposed EIL area in the northern part of the property, there is better quality native vegetation, comprising Jarrah/ Banksia and Marri woodlands. There are also introduced, garden variety species planted around the residence and introduced tree species planted along the driveway and tracks.

3.8.3 Significant Vegetation

Banksia Woodlands of the Swan Coastal Plain (commonwealth listed TEC, state listed priority 3 PEC) is present on the property outside the proposed extraction area.

3.8.4 Significant Flora

No flora listed as Threatened under the EPBC Act or BC Act were found during the Ecoedge surveys. Eight individual plants of the Priority 3 shrub *Verticordia attenuata* and three plants of the Priority 4 shrub *Accacia semitrullata* were found within the survey area (Ecoedge 2025). The proposed extraction area avoids all of these.

3.9 Terrestrial Fauna

Fauna habitat within the proposed extraction area is limited to the scattered patches of native vegetation and individual trees and shrubs over pasture. Understorey has been largely removed by past clearing and grazing. Habitat connectivity between the patches and across the site is poor but connectivity around the site is good. Better quality fauna habitat is available in the northern portion of the Lot 1 and on the surrounding properties.

3.9.1 Significant Fauna

A targeted fauna survey was conducted by Western Ecological (2023). The survey targeted the following species identified as likely to occur on the property:

- Baudin's cockatoo (*Zanda baudinii*) - Endangered.
- Carnaby's cockatoo (*Zanda latirostris*) - Endangered.
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) - Vulnerable.
- Western Ringtail Possum (*Pseudocheirus occidentalis*) - Critically Endangered.

Thirty seven trees with diameter at breast height (DBH) of more than 50 cm were identified within the proposed clearing area. No hollows suitable for black cockatoo breeding or roosting sites were recorded. The habitat is suitable for Western Ringtail Possums but none were recorded (Western Ecological 2023).

Searches of state and commonwealth government databases (DCCEEW 2023, DBCA 2023a, DBCA 2023b) were carried out to identify conservation significant fauna species with potential to occur in the local area. Within a 10 km search radius, 70 species were identified, the majority of which were marine, migratory, coastal, and wetland birds and there were also marine mammals, sharks, fish, and freshwater aquatic species. These species were not considered further as the proposed extraction area provides no suitable habitat for these.

Further to the Black Cockatoos and Western Ringtail Possum covered in the targeted survey, the following species of conservation significance were identified through the database searches as Possible to occur:

- South-western Brush-tailed Phascogale (*Phascogale tapoatafa wambenger*) - Conservation Dependent.
- Western False Pipistrelle (*Falsistrellus mackenziei*) - Priority 4.
- Western Brush Wallaby (*Notamacropus irma*) - Priority 4.

Whilst the above species have some potential to occur within the extraction area, the habitat available is limited in scale and degraded in nature. None of these species are expected to rely solely on the habitat available in the extraction area but rather utilise it as part of a larger range. The surrounding bushland outside the extraction area provides better quality habitat for all of these fauna species.

3.10 Heritage

3.10.1 Aboriginal Heritage Sites

There are no Registered or Other Aboriginal Heritage Places, as listed by the Aboriginal Heritage Inquiry System (AHIS) within the property (DPLH 2025)(Appendix A). The closest Registered Aboriginal Heritage Site — Preston River, 19795 — is located approximately 2 km to the northeast.

3.10.2 Heritage Places

Searches of the World, Commonwealth, National, State, and Shire of Capel heritage registers indicated that the property (inclusive of the proposed extraction area) does not contain any registered heritage places (DCCEEW 2024) (DAWE 2023a) (Government of Western Australia 2024) DPLH 2025, Heritage Council 2023, (Shire of Capel 2025)). The closest state heritage site — St Louis Catholic Church, 442 — is located 6.9 km to the southeast (Heritage Council 2023). The closest shire heritage site — North Boyanup School, 15180 — is approximately 3.6 km northeast of the property (Heritage Council 2023).

4. Potential Impacts and Management

4.1 Flora and Fauna

The proposed extraction area covers 30.16 ha, the majority of which has been cleared in the past (Landgate 2023). The main environmental impact of the project is the proposed clearing of approximately 1.3 ha of scattered native vegetation (Figure 8). This vegetation is limited to small patches and scattered individual trees and shrubs over pasture in Good, Degraded, and Completely Degraded condition. The proposed extraction area boundary has been delineated so that it focuses on the previously cleared and disturbed areas. Stockpiles and turnaround areas are proposed to be placed within the extraction area, requiring no further vegetation clearing.

The areas on the property remaining outside the extraction area total 16.24 ha and consist of some bare ground, a residential dwelling and associated garden, and 8.6 ha remnant native vegetation. This native vegetation will continue to provide suitable habitat and connectivity for native fauna during sand extraction operations. Further, it is planned that an area, of at least the same size as the clearing requirement for the project, will be rehabilitated to native vegetation to mitigate the clearing impacts (to be confirmed as part of the DWER NVCP process).

The significance of the impacts of the proposed vegetation clearing and the management/mitigation/offset measures required to balance these will be determined by DWER as part of the NVCP process. This process will include a review of the flora, vegetation and fauna survey results. As part of this process, various measures to reduce, mitigate, and offset impacts of the native vegetation clearing will be considered as necessary.

At a minimum, the following measures will be implemented during the operations to manage impacts on flora and fauna:

- Demarcating the extraction area and the proposed clearing area in the field prior to disturbance to avoid off site impacts.
- Undertaking vegetation clearing in stages corresponding to the extraction stages.
- Engaging a licenced and appropriately qualified fauna specialist to inspect significant fauna habitat ahead of vegetation removal and be present during the removal of such habitat to move along or capture and relocate fauna.
- Removing and stockpiling topsoil, retaining some logs and larger branches, and mulching vegetation for later use in rehabilitation.
- Implementing weed and dieback management measures as per Section 4.2.
- Implementing dust management measures as per Section 4.4
- Implementing groundwater management measures as per Section 4.7
- Implementing drainage management as per Section 4.9.
- Implementing native revegetation as required by DWER (see indicative plans in Section 5).

4.2 Weeds and Dieback

The proposed extractive operations have potential to introduce and spread weeds and dieback but it is expected that adverse impacts can be largely avoided and minimised through the implementation of appropriate management measures. Twenty two weed species were identified within the flora survey area by Ecoedge (2025); however, this is likely to be an underestimate of the weed species present as the survey focussed on native vegetation areas. The recorded weed species included a single individual of the Declared Pest Plant **Gomphocarpus fruticosus*.

A separate Weed and Dieback Management Plan (WDMP) (MBS Environmental 2025b) has been prepared for this project to provide more detailed information on existing site conditions and to describe appropriate management measures to minimise potential impacts. The WDMP is provided as an appendix to the DA / EIL application. In summary:

- Due to the disturbance history of the site, the extraction area supports a range of weed species, most of which are common in the local area.
- Due to the disturbance history of the site and the lack of indicators species within the extraction area, the occurrence of dieback cannot be ruled out.
- The management measures presented in the WDMP aim to minimise the risk of introducing and spreading weeds or dieback within the property and off site.

4.3 Landform and Soils

Based on 'soil landscape land quality' mapping the main degradation risk for the soil within the proposed extraction area is wind erosion (DPIRD 2023). This will be managed as follows:

- Clearing and excavation will be staged, to minimise the area of bare ground open to the elements at any one point in time.
- Post-extraction rehabilitation will be undertaken gradually as extraction progresses to minimise the area of bare ground open to the elements at any time.
- A water truck will be available for dust suppression when required to minimise wind erosion.
- Soil binding agents or other dust control measures may be utilised if necessary to provide further reduction in wind erosion.

The proposed maximum final batter slopes of 1:6 (vertical : horizontal) are in line with local naturally occurring slopes and are also in accordance with approved final batter slopes for the other extractive sites in the local area. These slopes have been shown to be stable and are considered suitable for rehabilitation.

4.4 Dust

Extractive operations have potential to generate significant dust; however, effective management measures are available to limit dust generation. Please refer to the separate Dust Management Plan (MBS Environmental 2025a) for further information on dust risks, management, and monitoring.

4.5 Noise

Noise impacts on sensitive human receivers and their management are addressed separately in the DA. Refer to the Acoustic Assessment Prepared by Herring Storer Acoustics confirming the operations are to be in accordance with the Environmental Protection (Noise) Regulations 1997.

Considering the operations will be limited to standard noise regulation hours and, therefore, will not interfere with the typically quiet night time hours, the environmental impacts of the noise are expected to be minor. The noise impacts are also temporary in nature, ceasing once the extraction area has been rehabilitated.

4.6 Visual Impacts

The proposed operations are generally well screened by native vegetation. As extraction proceeds, the operations will be largely below the natural landform that will further reduce the visibility of the operations. The northern stages of the operations may be visible from a small section of Hair Place at the entrance to the site. Any visual impacts of the operations are expected to be minor and temporary in nature as the final landform and land use will blend into the surrounding area.

4.7 Groundwater

The proposed operations are not expected to have significant impacts to groundwater levels or water quality due to the following:

- Separation distance to maximum groundwater level will remain at least 0.5 m.
- No groundwater abstraction or dewatering is proposed as part of the operations.
- The scale of native vegetation clearing is minor and spread across the site and proposed to be mitigated with similar scale of native revegetation.
- No hydrocarbons or other chemicals will be stored on site. On-site refuelling of equipment will be from a mobile service vehicle carrying appropriate spill prevention and mitigation equipment. No major repairs or maintenance will take place on site.
- Soil testing will be undertaken as part of rehabilitation to determine the minimum amounts of fertiliser required to achieve rehabilitation outcomes.
- Weed control will limit the use of herbicides to the minimum required for the control of the target species.

4.8 Surface Water

There are no wetlands or watercourses (permanent or ephemeral) within Lot 1 (Section 3.6). The closest surface water body is a multiple use dampland approximately 220m to the south of the proposed extraction area, with all other wetlands more than 500m away. No impact on any wetland is expected as long as the groundwater management measures (Section 4.7) and drainage control measures (Section 4.9) are implemented.

4.9 Drainage

Due to the free draining nature of the sandy soil and the gently sloping surface, stormwater is expected to percolate into the soil with nil to minimal runoff. The following drainage measures will be put in place to manage any runoff that might occur from major rainfall events:

- Clean stormwater from outside the project area (if any) will be diverted away from operational areas.
- Stormwater from the extraction area (if any) will be contained within the extraction area. The proposed final landform (Figure 4) facilitates the containment of stormwater without additional management measures (as the extraction area will become a depression in the landscape).
- As stormwater will be contained within the extraction area, any turbidity will be contained as well.
- Rehabilitation of the extraction area to pasture will minimise future stormwater runoff and erosion.

4.10 Aboriginal Heritage

There are no registered Aboriginal heritage sites on the property. Should any potential artifacts or remains be discovered during operations, any works in the vicinity will stop immediately and the matter will be referred to the Department of Planning, Lands and Heritage. If bones are discovered, then the police will also be advised. The applicant notes that it is an offence under the WA *Aboriginal Cultural Heritage Act 2021* (ACH Act) to interfere with any Aboriginal site without appropriate approvals.

Scale: 1: 5,000
Original Size: A4
Aerial: ESRI Satellite 25/05/2022
Grid: GDA94 / MGA zone 50
0 100 200 m

BCP Group
Lot 1 Hair Place, North Boyanup

Figure 8

Proposed Native Vegetation Clearing

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MBS ENVIRONMENTAL

W:\BCP\Hair Pl\Management Plans\Environmental Mgt Plan\GIS\BCP_Hair Pl_Environmental Management Plan.qgz 05/08/2025 F8 Vegetation within EIL Area

5. Rehabilitation

5.1 Rehabilitation Areas

At this stage it is expected that the EIL area (30.16 ha) will be rehabilitated to pasture as shown in Figure 4. This will cater for post-extraction rural land uses and is in accordance with the zoning of the property (Shire of Capel 2025) and consistent with pre-extraction landuse. Pasture will be well suited for post-extraction landform and depth to groundwater.

Native revegetation requirements will be determined in consultation with DWER as part of the NVCP process. At this stage it is anticipated that an area at least the size of the native vegetation clearing requirement (currently proposed as 1.3 ha) will be rehabilitated to native vegetation on the property. This native revegetation will mitigate the impacts of clearing of native vegetation within the extraction area.

The sand extraction and pasture rehabilitation will proceed gradually in stages (up to 2 ha each). As each stage of sand extraction is completed, the process of rehabilitation will begin as extraction moves forward. The timing and staging of the native revegetation will be determined as part of the NVCP process with DWER.

Indicative revegetation measures are provided in the following sections. Some of these works will be undertaken prior to or during the extractive operations in preparation for rehabilitation. As part of decommissioning, any temporary site infrastructure (e.g. portable toilets) and waste/debris will be removed.

5.2 Rehabilitation Measures

5.2.1 Clearing and Handling of Native Vegetation

Key measures relating to clearing and handling of native vegetation include the following:

- Some of the cleared native vegetation, such as canopy material and smaller branches, will be mulched and stockpiled for later used in native rehabilitation.
- Other plant matter, such as larger branches and some tree trunks removed from the clearing areas will be relocated to native revegetation areas to create microhabitats and assist with topsoil retention.

5.2.2 Soil Management and Earthworks

Key measures relating to soil management and earthworks within the extraction area include the following:

- Removal of topsoil (approximately 100 mm thick) and any present litter will proceed ahead of extraction. When possible, stripped topsoil will be spread across finalised land surfaces to avoid stockpiling, thus maximising seed and microbial benefits. When necessary, topsoil will be stockpiled for later use.

- As the extraction progresses, the landform will be finalised in accordance with the latest approved development plan (maximum batter slopes of 1:6). The final contours shall be achieved and confirmed by way of digital survey.
- Prior to topsoil return, the pit floor will be deep ripped to undo any compaction from sand extraction operations. Other areas of potential compaction will also be ripped. While the removal of compaction is necessary to maximise plant root and water penetration into the soil during rehabilitation, it is not expected that the pit batter slopes will require deep ripping due to the sandy nature of the soils and the lack of compacting activities on batters.
- The stockpiled topsoil will be re-spread across the extraction area at 50 to 100 mm deep.

5.2.3 Revegetation

At this stage, the objective of rehabilitation within the extraction area will be the establishment of pasture in order to stabilise the soil and cater for rural land uses.

Once all the preparation works have been undertaken, pasture will be established as follows:

- Soil testing will be undertaken to determine the minimal amount of fertiliser required (if any) for the successful establishment of pasture.
- If fertiliser is required, the site will be allowed to wet up with autumn rains before application of NPK and trace elements at a volume determined through soil testing outcomes.
- A pasture species mix will then be direct seeded into the topsoil by appropriate machinery. This will include a mix of annual grasses, clovers, and other species suitable to Bassendean sands. Seeding will only take place once sufficient rains have fallen to allow for successful germination.
- Pasture seed will be sown at a rate of >30 kg of seed/ha.

The objective for native revegetation will be to establish self-sustaining native vegetation that will provide habitat for the local fauna species to mitigate the proposed vegetation clearing. The species mixture will be guided by the flora and vegetation survey (Ecoedge 2025) to be undertaken at the site as part of the NVCP process and will comprise of endemic species currently occurring on and around the property. The potential occurrence of dieback will be considered in the species selection. The revegetation will include species that provide habitat for the significant fauna likely to be present in the local area (e.g., Black Cockatoos and Western Ringtail Possum). Details of native revegetation will be further defined as part of the NVCP process.

5.2.4 Weed Control

Weed control measures include those described for the operational stage in the separate WDMP as well as the following specific to rehabilitation:

- Within the extraction area, weeds that may compromise the establishment of pasture, declared plants, or WoNS will be controlled prior to the seeding of pasture.

- Within any native revegetation area, weed control will be undertaken prior to seeding/planting of native species to reduce the overall weed load and to target any declared plants and WoNS.
- Weed control may include boom spraying or spot spraying depending on the scale of control required. Care will be taken to avoid adverse impacts on existing native vegetation.
- In addition to broad spectrum herbicides, weed-specific herbicides will be used where appropriate to target broadleaf, grass, geophyte, and woody weeds.
- Maintenance weed control following seed germination and plant establishment will include spot spraying to avoid impacts on non-target species.
- Weed control will limit the use of herbicides to the minimum required for the control of the target species in order to minimise risk of groundwater contamination.

5.2.5 Grazing Control

The most cost-effective method of grazing control will be determined at a later stage once the rehabilitation methods and areas have been confirmed. The property has a boundary fence that excludes livestock; however, the fence does not currently prevent the access of kangaroos and rabbits. Additional fencing and/or tree guards will be considered to ensure the rehabilitation completion criteria can be achieved.

5.2.6 Dieback Management

The dieback management measures described in the separate WDMP will also apply to rehabilitation.

5.3 Completion Criteria

Completion criteria for pasture rehabilitation are presented in Table 2. The completion criteria for native vegetation will be developed as part of the NVCP process.

Table 2: Indicative Completion Criteria

Aspect	Completion Criteria
Landform	Final landform is in accordance with an approved land re-establishment plan.
Soil Profile	Topsoil has been replaced in all rehabilitation areas.
Pasture - Cover	Pasture cover is sufficient to stabilise soil.
Significant Weeds	No declared pest plants or Weeds of National Significance present.
Bare Ground	No bare patches of ground more than 30 m^2 in size.

5.4 Monitoring and Mitigation Measures

Monitoring and mitigation measures have been broken down to those relating to final landform, pasture and native revegetation, and these are covered in the following sections.

5.4.1 Final Landform

Monitoring and mitigation measures relating to the final landform that will be undertaken are described in Table 3.

Table 3: Monitoring and Mitigation Measures for Final Landform

Item	Monitoring	Frequency	Mitigation
Landform	Licenced surveyor will confirm that the final landform is in accordance with the final contour plan.	Once per rehabilitation stage (typically an annual survey capturing new areas).	Corrective works as necessary.
Soil Profile	Photographic monitoring will be undertaken to show that topsoil has been respread.	Once per rehabilitation stage as part of vegetation monitoring.	Corrective works as necessary.
Erosion	Visual checks for landform stability and signs of erosion.	At least annually until completion criteria met.	Corrective works as necessary.

5.4.2 Monitoring and Mitigation - Pasture

Pasture monitoring and mitigation will be ongoing for the life of the extraction process and two years after the last seeding. Mitigation will be undertaken as necessary to address any issues identified through monitoring. The monitoring and mitigation of pasture as summarised in Table 4 will be undertaken by the proponent.

Table 4: Monitoring and Mitigation Measures for Pasture

Monitoring	Mitigation
Success of pasture establishment (plant vigour/resilience).	Re-seed areas of poor success. Trial alternative pasture species. Consider watering.
Weed infestations.	Control weeds by manual removal or herbicide application.
Soil issues (e.g., areas lacking growth vigour).	Mitigate poor soils.
Erosion damage.	Repair erosion damage.

5.4.3 Monitoring and Mitigation - Native Revegetation

Formal revegetation monitoring will occur at least once per year in spring until the completion criteria have been met and maintained for two years. This monitoring will be undertaken by a suitably qualified and experienced environmental professional. Additional informal monitoring will be undertaken by the sand extraction project operators to identify and respond to any maintenance needs as quickly as possible and maximise progress towards completion criteria. Separate seedling survival checks may also be undertaken as need be in autumn in preparation for planting season.

Vegetation monitoring will comprise the following unless otherwise agree with DWER as part of the NVCP process:

- Mixture of permanent and random quadrats (10 m by 10 m each, minimum one per hectare).
- Vegetation monitoring survey will be undertaken once per year in spring until completion criteria are met and maintained for two years.

- During each survey the following will be recorded for each quadrat:
  - Number of native plants present (planted, seeded, or naturally recruited).
  - Species of native plants (planted, seeded, or naturally recruited).
  - Maximum height for each native species.
  - Native vegetation structure.
  - Native vegetation % foliage cover.
  - Species of weeds.
  - Estimated live % foliage cover of weeds.
  - Vegetation condition (Keighery 1994).
  - Signs of grazing, disease, pests, lack of moisture, erosion or other landform instability, or other factors adversely impacting on revegetation.
  - Location coordinates and photographs.
- Boundary fence inspected to determine need for maintenance.
- Opportunistic traverses undertaken across the revegetation area when moving between monitoring locations. During these traverses, notes will be made of following:
  - Species of native plants (to obtain a record of species potentially not present in quadrats).
  - Species of weeds (particularly any significant weed species to be eradicated).
  - Signs and location of any grazing, disease, pests, lack of moisture, erosion or other landform instability, or other factors adversely impacting on revegetation.
  - Location of any bare patches larger than 30 m^2.

Monitoring results will be assessed against the completion criteria and mitigation measures will be implemented if necessary. These mitigation measures include but are not limited to following:

- Supplementary planting/seeding.
- Weed and/or pest control.
- Fence maintenance.

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APPENDIX A

APPENDIX A:
AHIS SEARCH

Aboriginal Cultural Heritage Inquiry System

List of Aboriginal Cultural Heritage (ACH) Register

For further important information on using this information please see the WA.gov.au website's Terms of Use at https://www.wa.gov.au/terms-of-use

Search Criteria

No Aboriginal Cultural Heritage (ACH) Register in Custom search area - Polygon - 115.660646886866°E, 33.4445226783251°S (GDA94) : 115.660646886866°E, 33.4340656989422°S (GDA94) : 115.672276945155°E, 33.4340656989422°S (GDA94) : 115.672276945155°E, 33.444522678325°S (GDA94) : 115.660646886866°E, 33.4445226783251°S (GDA94)

Disclaimer

Aboriginal heritage holds significant value to Aboriginal people for their social, spiritual, historical, scientific, or aesthetic importance within Aboriginal traditions, and provides an essential link for Aboriginal people to their past, present and future. In Western Australia Aboriginal heritage is protected under the *Aboriginal Heritage Act 1972*.

All Aboriginal cultural heritage in Western Australia is protected, whether or not the ACH has been reported or exists on the Register.

The information provided is made available in good faith and is predominately based on the information provided to the Department of Planning, Lands and Heritage by third parties. The information is provided solely on the basis that readers will be responsible for making their own assessment as to the accuracy of the information. If you find any errors or omissions in our records, including our maps, it would be appreciated if you provide the details to the Department via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form and we will make every effort to rectify it as soon as possible.

South West Settlement ILUA Disclaimer

Your heritage enquiry is on land **within or adjacent to** the following Indigenous Land Use Agreement(s): Gnaala Karla Booja Indigenous Land Use Agreement.

On 8 June 2015, six identical Indigenous Land Use Agreements (ILUAs) were executed across the South West by the Western Australian Government and, respectively, the Yued, Whadjuk People, Gnaala Karla Booja, Ballardong People, South West Boojarah #2 and Wagyl Kaip & Southern Noongar groups, and the South West Aboriginal Land and Sea Council (SWALSC).

The ILUAs bind the parties (including 'the State', which encompasses all State Government Departments and certain State Government agencies) to enter into a Noongar Standard Heritage Agreement (NSHA) when conducting Aboriginal Heritage Surveys in the ILUA areas, unless they have an existing heritage agreement. It is also intended that other State agencies and instrumentalities enter into the NSHA when conducting Aboriginal Heritage Surveys in the ILUA areas. It is recommended a NSHA is entered into, and an 'Activity Notice' issued under the NSHA, if there is a risk that an activity will ‘impact’ (i.e. by excavating, damaging, destroying or altering in any way) an Aboriginal heritage site. The Aboriginal Heritage Due Diligence Guidelines, which are referenced by the NSHA, provide guidance on how to assess the potential risk to Aboriginal heritage.

Likewise, from 8 June 2015 the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) in granting Mineral, Petroleum and related Access Authority tenures within the South West Settlement ILUA areas, will place a condition on these tenures requiring a heritage agreement or a NSHA before any rights can be exercised.

If you are a State Government Department, Agency or Instrumentality, or have a heritage condition placed on your mineral or petroleum title by DEMIRS, you should seek advice as to the requirement to use the NSHA for your proposed activity. The full ILUA documents, maps of the ILUA areas and the NSHA template can be found at https://www.wa.gov.au/organisation/department-of-the-premier-and-cabinet/south-west-native-title-settlement.

Further advice can also be sought from the Department of Planning, Lands and Heritage via https://achknowledge.dplh.wa.gov.au/ach-enquiry-form.

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Coordinates

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Department of Planning, Lands and Heritage

GOVERNMENT OF WESTERN AUSTRALIA

Aboriginal Cultural Heritage Inquiry System

Map of Aboriginal Cultural Heritage (ACH) Register

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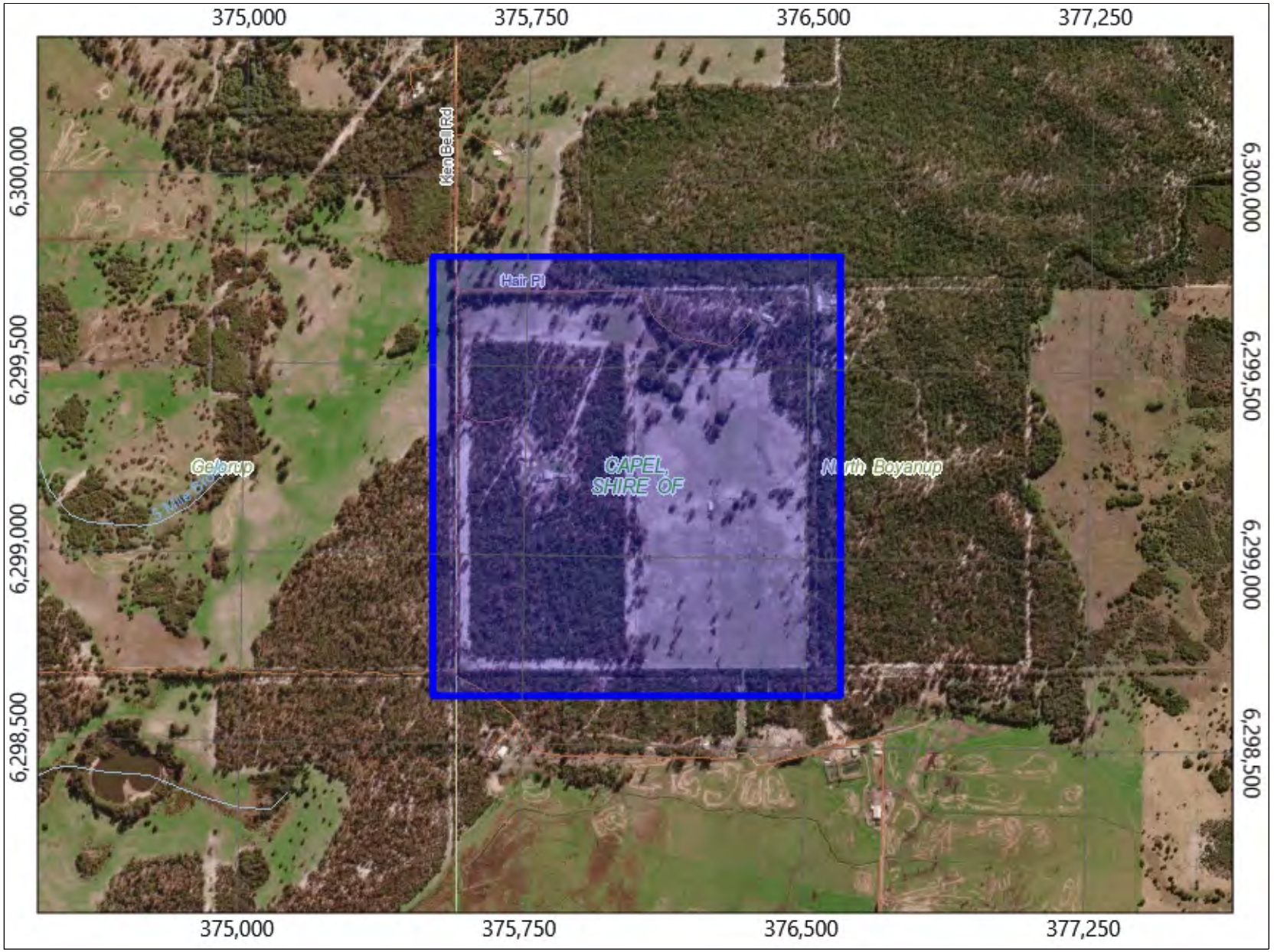

Legend

- Aboriginal Cultural Heritage (ACH) Register
- Search Area
- Aboriginal Community
  - *Permanent*
  - *Seasonal*
  - *Town Based*
- Town
- Road
- River
- Local Government Authority

0.61 kilometres

Map Scale 1 : 18,400

MGA Zone 50 (GDA2020)

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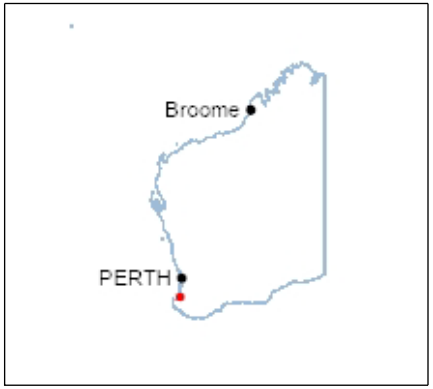

Targeted and Detailed Flora and Vegetation Survey of 34 Hair Place, Gelorup

Western Australia

May 2025

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Executive Summary

Ecoedge Environmental Services was engaged by MBS Environmental to carry out a Detailed and Targeted flora and vegetation survey at 34 Hair Place in North Boyanup, Western Australia, in August 2023.

The survey area encompassed approximately 9.9 hectares of native vegetation within a 46.4-hectare survey area.

A targeted and detailed survey was conducted on 23 August and 13 October 2023 by R. Smith and C. Spencer, in accordance with the Environmental Protection Authority (EPA) Technical Guidance: Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016). The principal botanist conducting this survey (R. Smith) has over 35 years of experience in the Southwest of Western Australia.

One hundred and fourteen taxa of flora were identified within the survey area, of which 22 (19%) were introduced taxa. The relatively high proportion of non-native species can be ascribed to the high level of disturbance over most of the survey area.

No flora listed as Threatened under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*, or the *Biodiversity Conservation Act 2016,* were found within the survey area. However, eight individual plants of the Priority 3 shrub *Verticordia attenuata* and three of the Priority 4 shrub *Acacia semitrullata* (in three locations) were found in the north-east of the survey area.

Sixty-three significant species were identified as potentially occurring within this search area in the desktop review. Of these, one taxon, *Acacia semitrullata* (P4), was considered 'Likely' to occur, and three species were considered to 'Possibly' occur within the survey area. The remaining 59 taxa were thought to be 'Unlikely' to occur, mainly because suitable habitat was not present.

Two significant flora species were recorded during the survey: *Acacia semitrullata* (P4) (pre-survey Likely to be found), and *Verticordia attenuata* (P3), which was not on the pre-survey list.

The 62 taxa considered Unlikely to be present in the survey area were not found; in almost every case, this was because potential habitat was not present. In addition, a thorough survey at an appropriate time of year failed to find the three taxa where suitable habitat was present.

A single individual of the Declared Pest Plant, **Gomphocarpus fruticosus*, was found in the survey area.

Two vegetation units (unit A and unit B) were recognised and mapped within the survey area using their structurally dominant species. The statistical analysis of the six floristic quadrats installed in the survey area determined that two FCTs were present, FCT21a (Central *Banksia attenuata-Eucalyptus marginata* woodlands) and FCT21c (Low-lying Banksia woodlands and shrublands). These are components of the Commonwealth-listed TEC 'Banksia Woodlands of the Swan Coastal Plain' (state Priority 3 PEC) when meeting patch size and condition thresholds. FCT21c is also listed as Priority 3 PEC at state level.

An assessment against the criteria for determining occurrences of the Commonwealth-listed TEC 'Banksia Woodlands of the Swan Coastal Plain' showed that 7.51 hectares of this TEC occurred in the survey area.

78.6% of the survey area was mapped as cleared. The remaining native vegetation (9.9 ha) was mainly in Good (56.8%) or Degraded (26.7%) condition. Recently, slashing of the understorey within much of the Banksia woodland in the northern part of the survey area has caused some change in the density of the vegetation.

The Bassendean Complex—Central and South—is the only vegetation complex present within the survey area, and less than 30% of its pre-European extent remains.

One of Beard's vegetation associations, Association 1000, is mapped across the survey area. At all assessment tiers, less than 30% of its pre-European extent remains.

The Dalyellup, Gelorup, and Crooked Brook Ecological Linkage bisects the survey area.

There are no mapped Environmental Sensitive Areas (ESAs) within the survey area. The closest ESA is located 1.13 kilometres northeast of the area.

None of the vegetation in the survey area is considered riparian and is not growing in association with a wetland.

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Statement of limitations

Reliance on data

In preparing this report, Ecoedge has relied on data, surveys, analyses, designs, plans, and other information provided by the Client and other individuals and organisations, most of which are referenced in the report. Unless stated otherwise in the report, Ecoedge has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report are based in whole or in part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Ecoedge will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, unavailable, misrepresented or otherwise not fully disclosed to Ecoedge.

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1 Introduction

Ecoedge Environmental Services (Ecoedge) was engaged by MBS Environmental (MBS) to carry out a Detailed and Targeted flora and vegetation survey at 34 Hair Place, North Boyanup, Western Australia (WA) in August 2023. The survey area is shown in **Figure 1** and **Figure 2**. MBS Environmental required the survey to inform project planning and environmental approvals.

The survey area occurs within the Shire of Capel and is situated approximately 13 km south of Bunbury.

This report compiles findings of the survey.

2 Scope and objectives

MBS required a desktop assessment to be conducted prior to the field survey to identify relevant key features and constraints which were in or nearby the survey area, such as Threatened and Priority Flora, Threatened and Priority Ecological Communities (TEC and PECs), riparian vegetation, unusual soil/landscape systems, conservation estates, poorly represented vegetation associations and/or vegetation complexes and Environmentally Sensitive Areas (ESAs). The desktop assessment area (study area) encompassed a ten-kilometre buffer to the survey area.

The field survey was required to ground truth the desktop assessment findings and delineate all significant flora and vegetation components within the survey area, including TECs and PECs and Threatened and Priority flora.

The survey and report were required to be undertaken in accordance with the Environmental Protection Authority (EPA) Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment (EPA 2016) and meet requirements of other relevant State and Commonwealth guidelines for threatened species and communities, such as approved conservation advice for *Environmental Protection and Biodiversity Act 1999* (EPBC Act 1999) threatened species and communities.

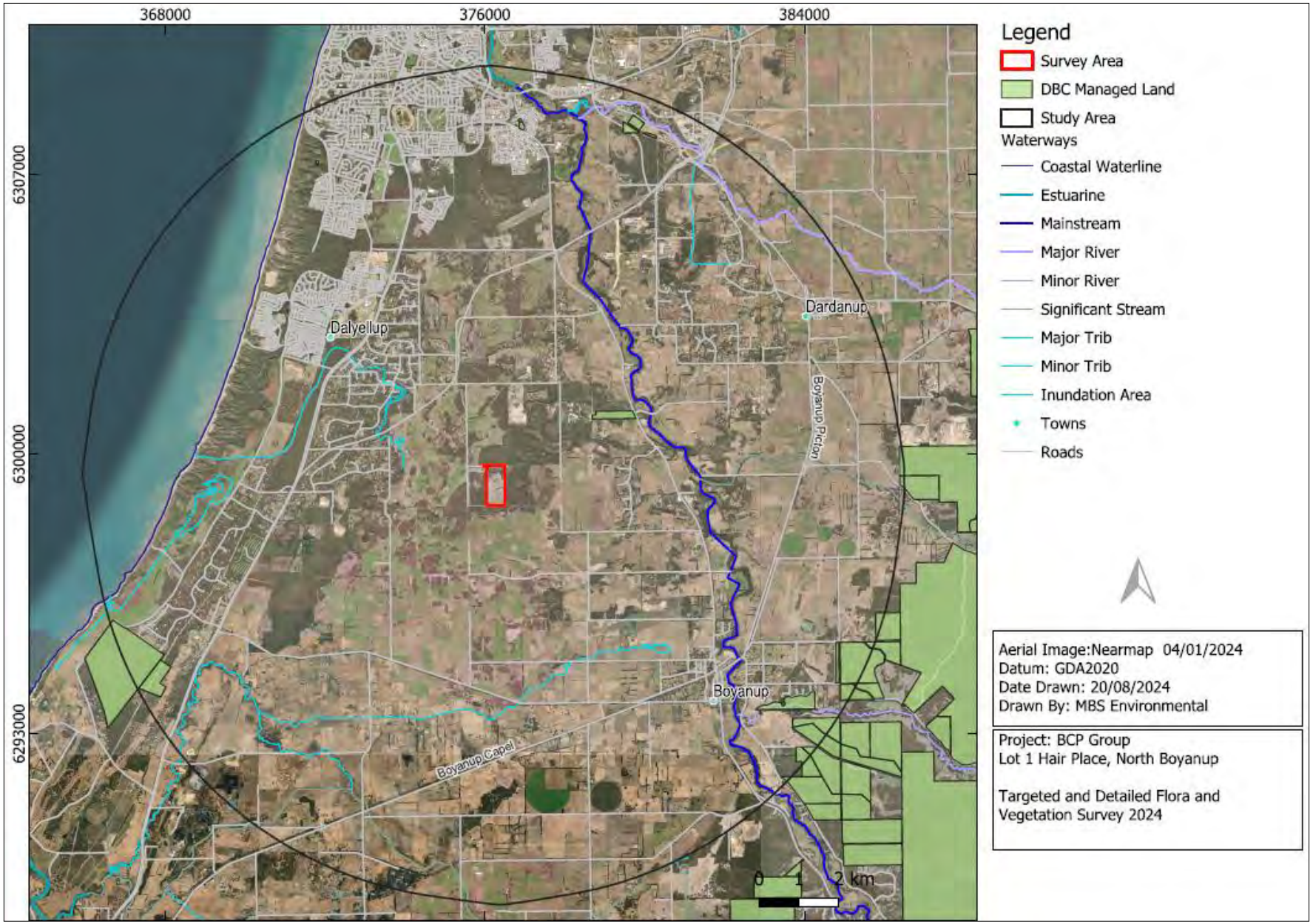

Figure 1. Aerial photograph showing the regional extent within the survey area.

Figure 2. Aerial photograph showing the survey area.

3 Methods

3.1 Desktop assessment

Prior to the field survey, a desktop assessment was undertaken to provide contextual information on the flora and vegetation within the survey area. The desktop studies included a review of the following information.

- Regional geology and soil mapping (DPIRD 2017, van Gool 1990).
- Vegetation complex mapping of the South West Forest Region of Western Australia (Mattiske and Havel 1998) and the System 6 area (Heddle et al. 1980) as updated by Webb et al. (2016).
- Beard's pre-European vegetation association mapping dataset DPIRD-006 (DPIRD 2019, Beard et al. 2013).
- WA Threatened and Priority Ecological Communities Department of Biodiversity, Conservation and Attractions (DBCA) database extracts for 10 km radius (DBCA 2023a) and TEC and PEC listings (DBCA 2023b, DBCA 2023c).
- Federal Protected Matters Search Tool results for 10 km radius (DCCEEW 2024).
- Atlas of Living Australia 10 km area report (ALA 2024).
- Extract from the DBCA Threatened Flora database and the Western Australian (WA) Herbarium database for 10 km radius (DBCA 2023d).
- Geomorphic Wetlands, Swan Coastal Plain (SCP) dataset DBCA-019 (DBCA 2022).
- Environmentally sensitive areas distribution maps and data (DWER 2021).
- Surface Hydrology Lines (National) (Crossman & Li 2015).
- South West Regional Ecological Linkages (Molloy et al. 2009).

3.1.1 Significant flora likelihood of occurrence

Prior to undertaking the survey, an assessment was conducted to determine the likelihood of the occurrence of Threatened and Priority flora within the survey area. The rationale for determining this pre-survey (and post-survey) likelihood of occurrence is provided in **Appendix 1**.

3.2 Field survey

A targeted and detailed survey was conducted on 23 August and 13 October 2023 by Russell Smith (flora permit FB62000500) and Colin Spencer (flora permit FB62000169-3), in accordance with the requirements of EPA (2016).

Flora species not identified in the field were either photographed or collected for later identification (as per WA Herbarium guidelines (DBCA 2020).

Vegetation mapping notes were collected at 13 locations in the survey area and vegetation condition was recorded at 176 points. Additionally, six floristic quadrats (10 m x 10 m) were established within the northern part of the survey area. Apart from within the Banksia and Marri woodland at the very northern end of the survey area, vegetation was not of sufficient quality to install floristic quadrats.

Vegetation units were described based on the National Vegetation Information System (NVIS) (Level 5; NVIS, 2017), using information collected from mapping notes, vegetation condition points, and quadrats. This information, together with the support of recent aerial photography, was used to map the spatial boundary of the vegetation units.

Vegetation condition was assessed using the method of the EPA (2016) (**Appendix 2**).

The location of all sample sites, including trackfiles for the survey, are shown in **Appendix 3**.

3.3 Multivariate analysis

The floristic quadrat data from the survey area was subjected to a multivariate analysis (MVA) using the software PATN (Belbin 2003) to determine the relationship of these quadrats to the floristic community types derived for the Swan Coastal Plain (Gibson et al. 1994). During the analysis, single-site insertions of new quadrat data into the existing datasets was undertaken to minimise disruption of the original dataset.

The MVA used two-way classification (Agglomerative Hierarchical Fusion) of the presence/absence data for each quadrat. The flexible UPGMA (unweighted pair group method with arithmetic mean) classification strategy was used (β = -0.1), together with the Bray-Curtis site similarity measure. The default settings for the number of groups to be produced by the classification (i.e., the "cut-off level") were accepted in each case. The primary output of the classification was dendrograms, a two-way table of taxa and quadrats and a table of quadrat association scores.

Data from all quadrats from the Southern Swan Coastal Plain (SCP) survey dataset (Keighery et al. 2012) were used in the MVA. For the quadrats from the Gibson et al. (1994) dataset, the assigned FCT[1] code was affixed to the quadrat name to facilitate understanding the MVA

[1] Floristic Community Type

outputs. The main output from the MVA used in assigning FCTs to the survey area quadrats was the dendrogram. In total, 1,061 taxa and 515 quadrats were used in the MVA.

3.4 Survey limitations

Limitations with regard to the assessment are addressed in **Table 1.**

Table 1. Limitations of the field survey with regard to assessment adequacy and accuracy.

Aspect	Constraint	Comment
Scope	Not a constraint	The survey scope was prepared in consultation with the Client and was designed to comply with EPA requirements.
Proportion of flora identified	Not a constraint	The survey was carried out in August and October, which is within the optimal survey time in the south-west, and most taxa were identifiable.
Climatic and seasonal effects	Minor	Rainfall recorded to the end of 2023 for Bunbury (009965, the nearest station with complete records) was 98% (716mm/year) of the long-term mean, which indicates that there was adequate rainfall for plant growth and flowering, albeit below average for the year.
Availability of contextual information	Not a constraint	Regional surveys of remnant vegetation and more localised surveys have been carried out on the southern Swan Coastal Plain
Skill and knowledge of the botanists (vascular flora)	Not a constraint	The principal botanist for this survey has over 35 years' experience in flora surveys in the south-west of W.A.
Disturbance (fire, grazing, clearing etc.)	Minor	There were no recent disturbances, such as fires, affecting the survey, except for a small area near quadrat HAIR01. However, much of the bushland in the northern part of the survey area appears to have been subject to slashing of the understorey for fire control purposes.

4 Results desktop assessment

4.1 Biogeographic region and location

The survey area is situated within the Perth (SWA02) subregion of the Swan Coastal Plain (SWA) biogeographic region as defined in the Interim Biogeographical Regionalisation for Australia (IBRA) (Commonwealth of Australia 2016, DCCEEW 2023).

4.2 Landform and soils

The survey area occurs on the Swan Coastal Plain (SCP), which is bound by the Darling Scarp to the east, Indian Ocean to the west, Moore River to the north, and Dunsborough to the south. The SCP is built up of two belts of sediments that differ in origin: aeolian sediments in the west and alluvial sediments in the east. The aeolian sediments comprise three major dune systems:

- Bassendean system – the most easterly and oldest system.
- Quindalup system – the most westerly and youngest system.
- Spearwood system – located in between the Bassendean and Quindalup systems.

These wind-deposited dunes press up against the Pinjarra plain, which is built up of alluvium deposited by streams from the Darling Plateau. Its alluvial soils are predominantly clays and silts; in places, low dunes of aeolian sands from the west may overlay the alluvial soils (Seddon 1972).

The survey area occurs across the Bassendean land system (212_Bs). The Bassendean land system is comprised predominantly of sand dunes and sand plains of deep, pale grey, siliceous sand intervened with sandy and clayey swamps with some black, peaty soils (van Gool 1990). The system has been divided into soil phases based on local soil conditions, with the two soil phases (soil landscape units) within the survey area described in Table 2 and shown in **Figure** 3.

Table 2. Soil Mapping Units occurring within the survey area (van Gool 1990).

System	Subsystem	Description
Bassendean system (212_Bs)	212Bs_B1	Extremely low to very low relief dunes, undulating sandplain and discrete sand rises with deep bleached grey sands sometimes with a pale yellow B horizon or a weak iron-organic hardpan at depths generally greater than 2 m; banksia dominant.
	212Bs_B1b	Very low relief dunes of undulating sand plain with deep bleached grey sandy A2 horizons and pale yellow B horizons

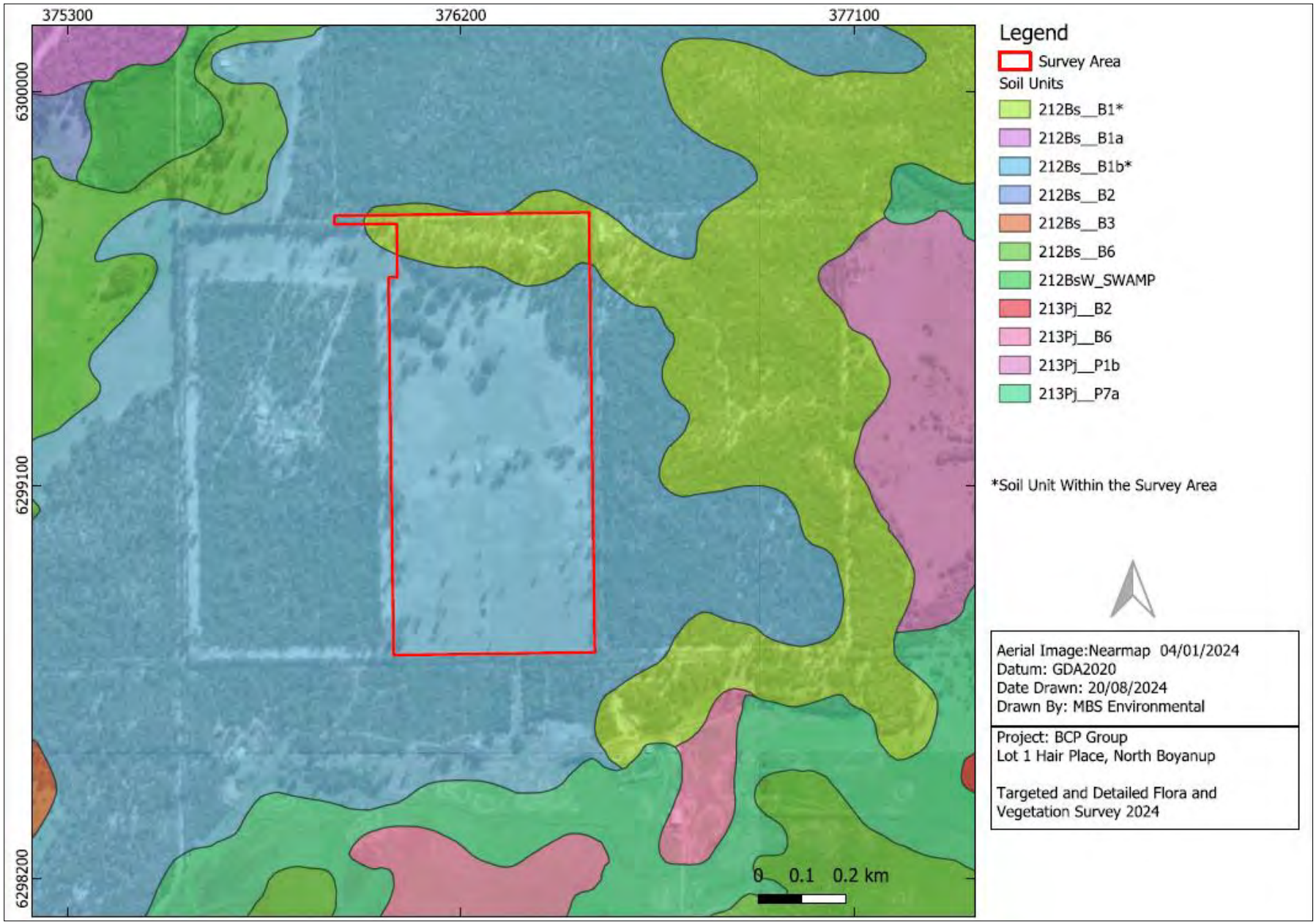

Figure 3. Soil units mapped in and nearby the survey area (DPIRD 2017).

4.3 Vegetation description according to pre-European mapping datasets

4.3.1 Vegetation complexes

The comprehensive pre-1750 distribution of vegetation complexes[2] across the southwest of Western Australia is based on two main data sets: Heddle et al.'s 1980 1:250,000 scale vegetation complex mapping of the 'System 6' area comprising of the greater Perth and Darling Range Region, and Mattiske and Havel's 1998 1:50,000 scale mapping of forest vegetation covered by the Regional Forest Agreement 1999[3] (Webb et al. 2016). Both data sets were prepared in order to inform the adequacy of biodiversity conservation through state managed reserves (EPA 1993, South-West Regional Forest Agreement 1999). In 2016 these data sets were revised by the Department of Parks and Wildlife (DPaW) (Webb et al. 2016) in order to fill data gaps and improve alignment and correlation between the data sets.

According to the vegetation complex mapping as updated by Webb et al. in 2016, the survey area occurs across one vegetation complex: the Bassendean Complex Central and South. This is described in **Table 3** and shown in **Figure 4.**

Table 3. Vegetation complexes mapped for the survey area (Webb et al. 2016).

Vegetation Complex	Description
Bassendean Complex-Central and South (44)	Vegetation ranges from woodland of *Eucalyptus marginata* (Jarrah) - *Allocasuarina fraseriana* (Sheoak) - Banksia species to low woodland of Melaleuca species, and sedgelands on the moister sites. This area includes the transition of Jarrah to *Eucalyptus todtiana* (Pricklybark) in the vicinity of Perth.

[2] Vegetation complex mapping is based on broadscale assessment of regional patterns of vegetation in relation to underlying landforms, soils and climatic trends.

[3] Mattiske and Havel's (1998) mapping also included an assessment of an area of the very southern portion of the Swan Coastal Plain landform (Webb et al. 2016).

4.3.2 Vegetation associations

A systematic survey of native vegetation in Western Australia was conducted by J. S. Beard (along with others) during the 1970s, which described vegetation systems in southwestern Western Australia at a scale of 1:250,000. Beard's vegetation maps attempted to depict the vegetation as it might have been prior to European settlement in terms of type and extent (Beeston et al. 2001). The Beard Vegetation Association dataset, also referred to as the pre-European native vegetation extent dataset, was digitised by Shepherd et al. (2002).

Beard vegetation associations have been described to a minimum standard of Level 3 "Broad Floristic Formation" for the National Vegetation Inventory System (NVIS) (state-wide to regional scale)[4] (NVIS 2017)

The survey area is comprised of one Beard Vegetation Association, Association 1000, which is described in **Table 4** and shown in **Figure 5.**

Table 4. Vegetation associations mapped for the survey area (Beard et al. 2013).

Vegetation Association	Description
1000	Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (*Melaleuca* Spp.)

[4] Beard's vegetation mapping units are referred to as 'associations' however these do not correspond to the NVIS Level 5 'Associations'. The NVIS system was developed long after Beard's work was completed, and while both classification systems use the same term, NVIS 'Associations' describe vegetation in more detail than do Beard's.

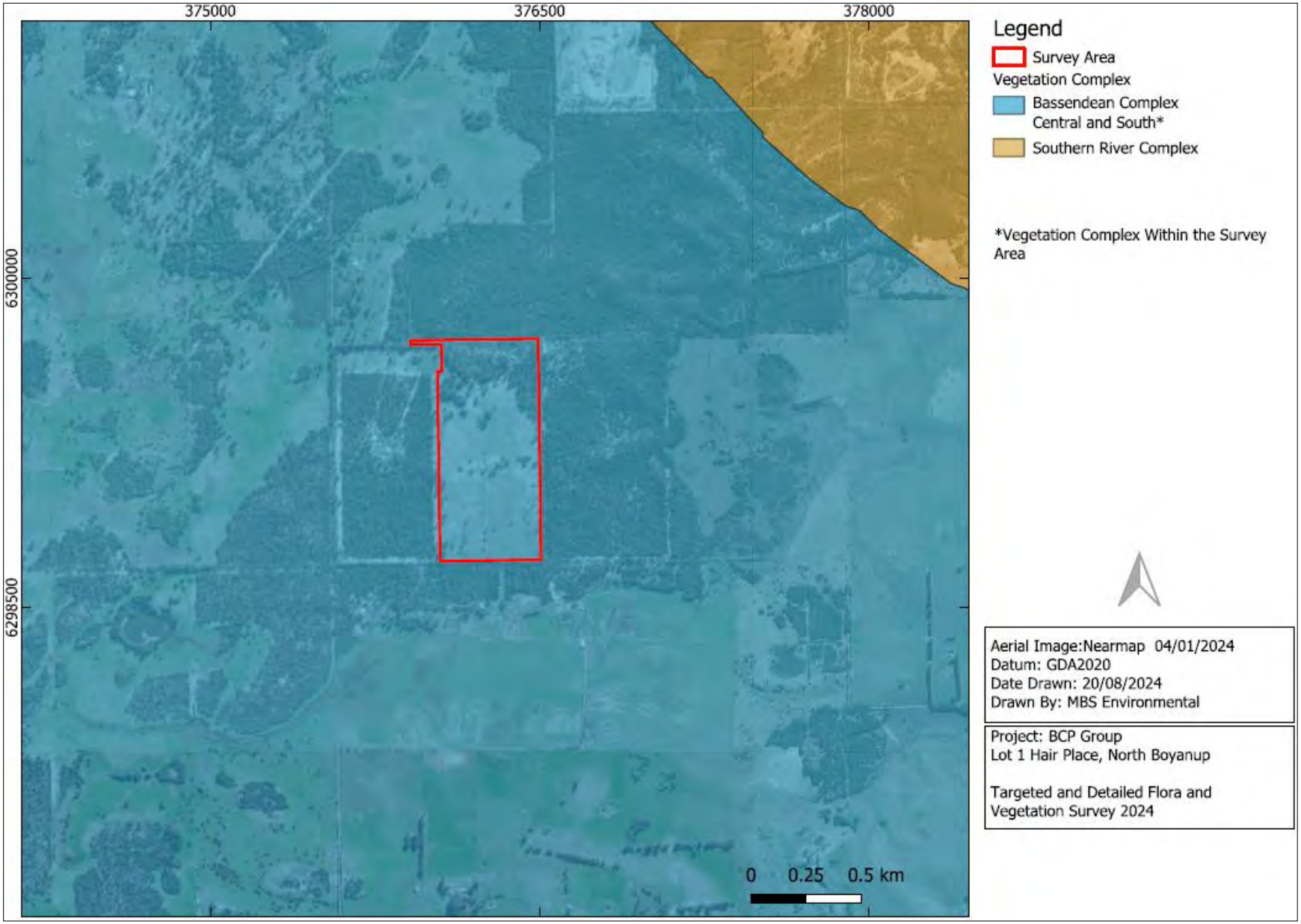

Figure 4. Vegetation complexes mapped in and nearby the survey area (Webb et al. 2016).

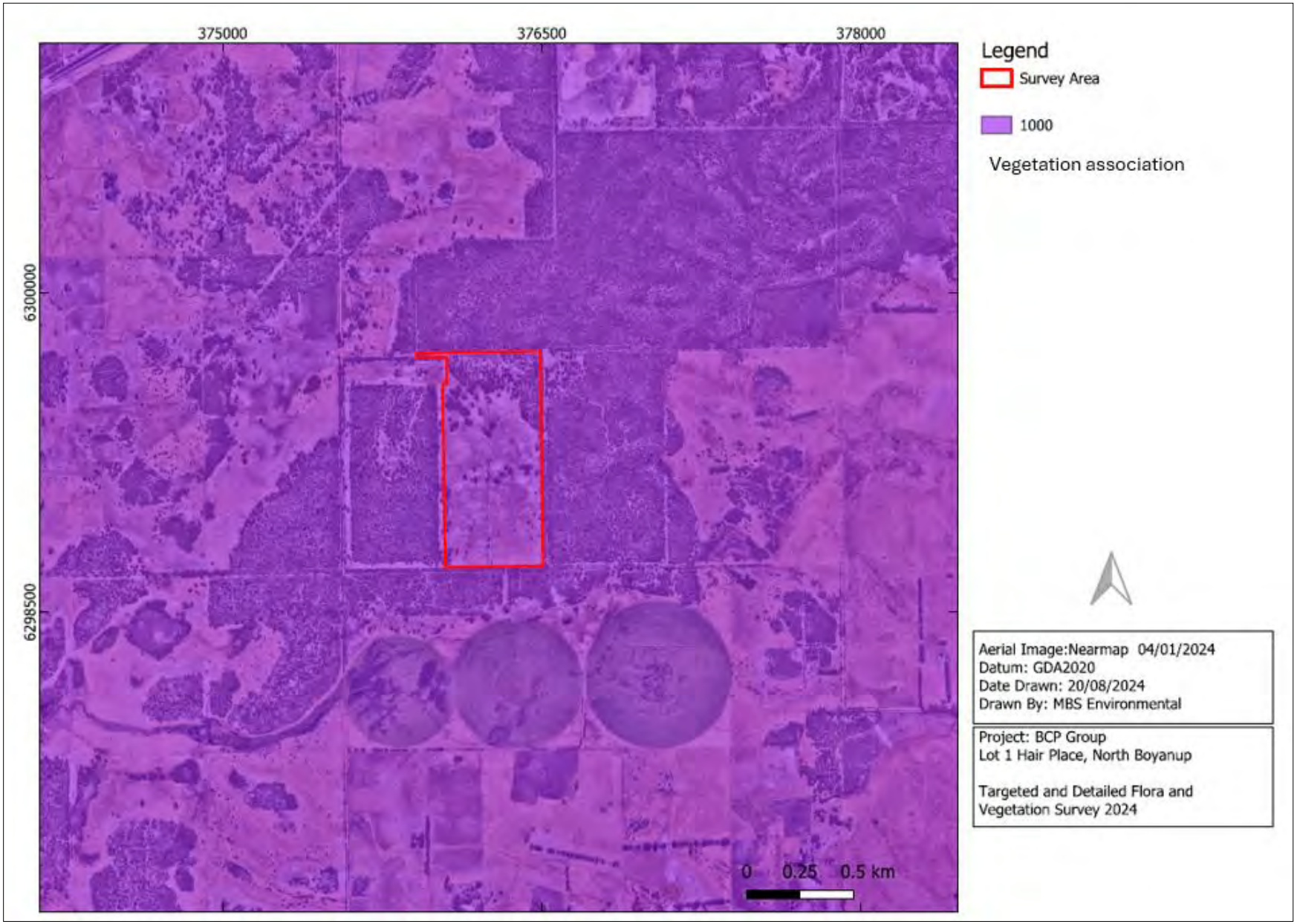

Figure 5. Vegetation associations mapped in and nearby the survey area (Beard et al. 2013).

4.3.3 Assessment of remaining extent against pre-European extent

In 2001, the Commonwealth of Australia stated National Targets and Objectives for Biodiversity Conservation, which recognised that the retention of 30%, or more, of the pre-clearing extent of each ecological community was necessary if Australia's biological diversity was to be protected (Environment Australia 2001).

In its report on the Statewide Vegetation Statistics incorporating the Comprehensive, Adequate and Representative (CAR) Reserve Analysis, the Government of Western Australia (GoWA) provides information on the pre-European and current extent of the ecological communities of Western Australia and reports on the status of the CAR reserve system for WA (GoWA 2019a). This system is also based on the national retention targets of 30% overall. Only reserves managed by DBCA under the *Conservation and Land Management Act 1984* are considered for inclusion in the "CAR Reserve Analysis". In Western Australia these statistics have been based on Beard's vegetation associations and Webb et al.'s (2016) updated vegetation complexes.

The percentage remaining of the pre-European extent vegetation and the percentage of current extent in DBCA managed land for the Bassendean Complex Central and South, and the Association 1000 described for the survey area are presented in **Table 5** and **Table 6** respectively.

The Bassendean Complex Central and South falls below the 30% Commonwealth retention target, with 26.87% of pre-European extent vegetation across the SCP and 23.49% within the Shire of Capel.

Association 1000 within the IBRA region and subregion also falls below the 30% Commonwealth retention target, with statewide and local government authority levels at 27.81% and 21.02% of pre-European vegetation remaining respectively.

The red, orange and yellow shading in the tables indicates the status of the Commonwealth 30% retention target.

Status of the Commonwealth retention target	>30%	<30%	<10%

Table 5. The vegetation complex mapped within the survey area with regards to the Commonwealth retention targets (GoWA 2019b).

Region	Pre-European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA reserves[5]
Bassendean Complex-Central and South (44)				
Swan Coastal Plain	87,476.25	23,508.66	26.87	5.00
Shire of Capel	4,946.61	1,162.15	23.49	n/a

* Excludes Crown Freehold Department Interest Lands that are managed under Section 8(a) of the CALM Act.

Table 6. The vegetation association within the survey area with regards to the Commonwealth retention targets (GoWA 2019a).

Region	Pre-European (ha)	Current Extent (ha)	% Remaining	% Remaining in DBCA Managed Land*
Association 1000				
State-wide	99,835.86	27,768.84	27.81	5.19
IBRA region: Swan Coastal Plain (SWA)	94,175.31	24,869.20	26.41	5.06
IBRA sub-region Perth (SWA02)	94,175.31	24,869.20	26.41	5.06
Shire of Capel	15,173.76	3,189.87	21.02	1.53

* Excludes Crown Freehold Department Interest Lands that are managed under Section 8(a) of the CALM Act.

[5] The % remaining in DBCA land is not calculated for the vegetation complex mapping data set.

4.4 Threatened and Priority ecological communities

Ecological communities are defined by DBCA as "...*naturally occurring biological assemblages that occur in a particular type of habitat. They are the sum of species within an ecosystem and, as a whole, they provide many of the processes which support specific ecosystems and provide ecological services*." (DEC 2013).

Under Section 27 of the *Biodiversity Conservation Act 2016* (BC Act), the WA Minister for Environment may list communities considered under significant threat as a TEC. These TECs can be listed under one of three conservation categories. These categories are Critically Endangered (CR), Endangered (EN), and Vulnerable (VU). The BC Act also provides for listing communities as collapsed ecological communities.

Possible TECs that do not meet survey criteria are added to the DBCA's Priority ecological community lists under Priorities 1, 2 or 3 (referred to as P1, P2, P3). Ecological communities that are adequately known, are rare but not Threatened, that meet criteria for near Threatened, or that have been recently removed from the Threatened list are placed in Priority 4 (P4). These ecological communities require regular monitoring. Conservation Dependent ecological communities are placed in Priority 5 (P5) (DEC 2013).

The current listing of Threatened and Priority ecological communities is specified by the DBCA (DBCA 2023b, 2023c). The conservation categories for these Threatened and Priority ecological communities are defined in **Appendix 4**.

TECs can also be listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). There are three categories of TEC under the EPBC Act: Critically Endangered (CR), Endangered (EN) and Vulnerable (VU) (DCCEEW 2022). These are defined in **Appendix 5.**

The desktop assessment, which included a Protected Matters Search (DCCEEW 2024) and review of DBCA TEC and PEC database extracts (DBCA 2023a), found 14 EPBC Act TECs, 10 BC Act TECS, and 11 State listed PECs within the 10 km study area.

Of these, the federally listed 'Banksia Woodlands of the Swan Coastal Plain' and 'Empodisma peatlands of southwestern Australia' were mapped as potentially occurring within the survey area.

Outcomes of these searches are presented in **Table 7.** The results of the DBCA records are shown in **Figure 6.**

Table 7. Threatened and Priority ecological communities occurring within 10 km study area (DBCA 2023a, DCCEEW 2024).

Community name and description	Status (WA)	Status (EPBC Act)
Banksia Woodlands of the Swan Coastal Plain ecological community – a federally listed TEC and state listed PEC, potential to overlap with other State-listed communities, three of which occur within the 10 km study area: SCP21b - Southern *Banksia attenuata* woodlands SCP21c - Low lying *Banksia attenuata* woodlands or shrublands SCP25 - Southern *Eucalyptus gomphocephala – Agonis flexuosa* woodlands	P3	T (EN)
'Claypans of the Swan Coastal Plain' – a federally listed TEC which includes several State-listed communities, four of which occur within the 10 km study area: SCP07 - Herb rich saline shrublands in claypans SCP08 - Herb rich shrublands in claypans SCP09 - Dense shrublands on clay flats SCP10a - Shrublands on dry clay flats	T (EN-VU)	T (CR)
Corymbia calophylla – Xanthorrhoea preissii woodlands and shrublands, Swan Coastal Plain: SCP3c	T (CR)	T (EN)
Corymbia calophylla woodlands on heavy soils of the southern Swan Coastal Plain: SCP1b	T (VU)	na
'Tuart (*Eucalyptus gomphocephala*) woodlands and forests of the Swan Coastal Plain' – a federally listed TEC consisting of several State-listed communities, two of which occur within the 10 km study area: SCP25 - Southern *Eucalyptus gomphocephala – Agonis flexuosa* woodlands SCP30b - Quindalup *Eucalyptus gomphocephala* and/or *Agonis flexuosa* woodlands	P3	T (CR)
Sedgelands in Holocene dune swales of the southern Swan Coastal Plain, two of which occur within the 10 km study area: SCP19a - Sedgelands in Holocene dune swales of the southern Swan Coastal Plain SCP19b - Woodlands over sedgelands in Holocene dune swales of the southern Swan Coastal Plain	T (CR)	T (EN)

Community name and description	Status (WA)	Status (EPBC Act)
Shrublands on calcareous silts of the Swan Coastal Plain: SCP18	T (VU)	na
Whicher Scarp Jarrah woodland of deep coloured sands: Whicher Scarp C2	P1	na
Swan Coastal Plain Paluslope Wetlands: Whicher Scarp Paluslope Wetlands	P1	na
Coastal Shrublands on shallow sands: SCP29a	P3	na
Empodisma peatlands of southwestern Australia	na	T (EN)

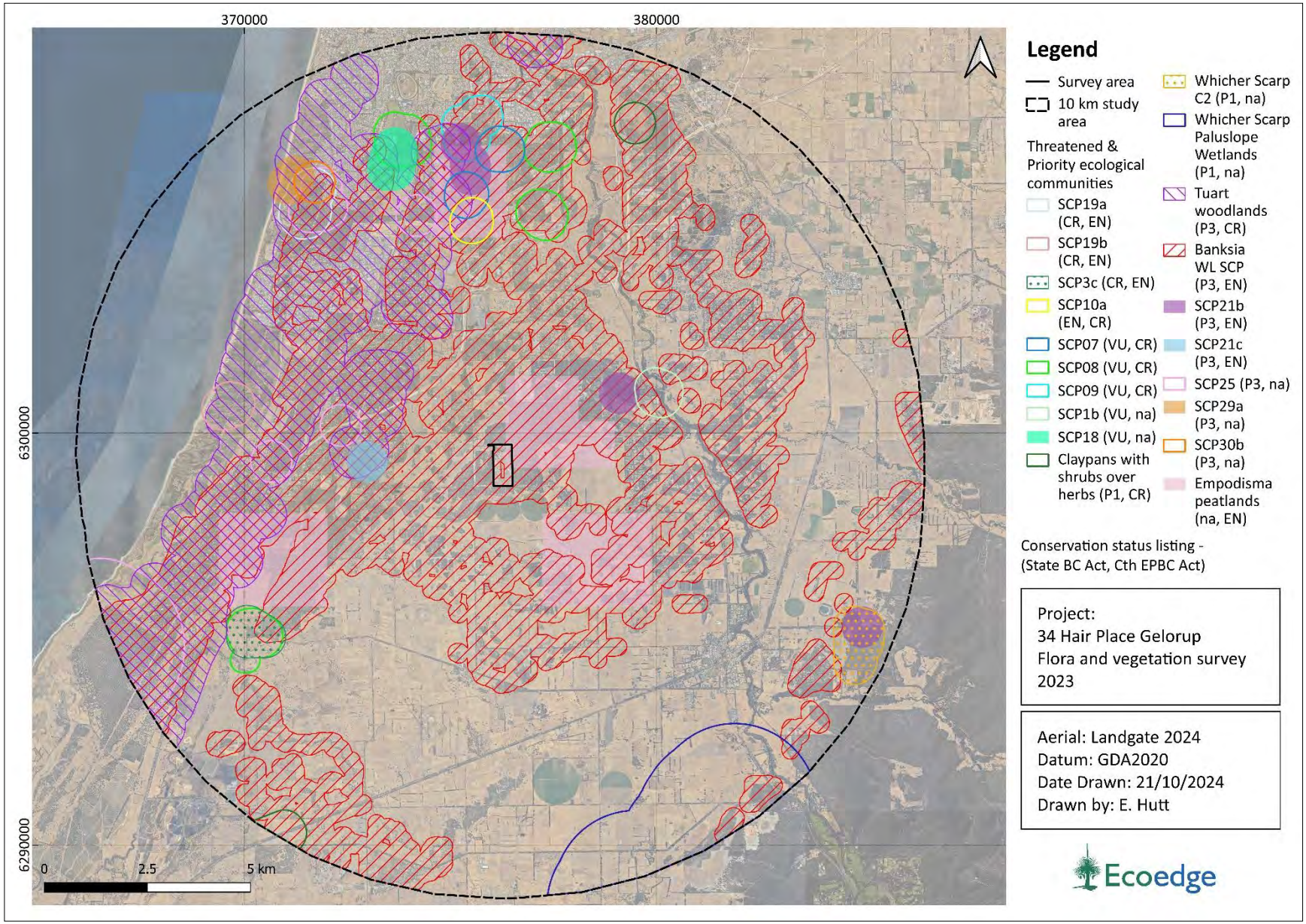

Figure 6. Threatened and Priority ecological communities within 10 km of the survey area (DBCA 2023a, DCCEEW 2024).

4.5 Threatened and Priority flora

Species of flora are defined as having a Threatened or Priority conservation status where their extant populations are restricted geographically and/or under threat of possible extinction. The DBCA recognises these threats and consequently applies regulations towards population and species protection.

Threatened extant flora species are listed under Section 19 of the BC Act. They are ranked according to their level of threat using the International Union for Conservation of Nature (IUCN) Red List categories and criteria. The categories are Critically Endangered (CR), Endangered (EN), and Vulnerable (VU). It is an offence to "take" or damage Threatened flora without Ministerial approval. Section 5 of the Act defines "to take" as "… *to gather, pluck, cut, pull up, destroy, dig up, remove, harvest or damage flora by any means*".

Priority flora is under consideration for future declaration as "Threatened flora", dependent on more information. Species classified as Priority One to Three (referred to as P1, P2 and P3) are in need of further survey to determine their status, while Priority Four (P4) species are adequately known rare or Threatened species that require regular monitoring.

Threatened flora lists are formally reviewed annually with the current listing updated on 1 September 2024 (DBCA 2024). The Priority flora list is subject to ongoing review with updates regularly published on the Western Australian Herbarium FloraBase website.

Categories of Threatened and Priority flora as defined by the BC Act are presented in **Appendix 6** (DBCA 2019).

Threatened flora may also be protected under the Commonwealth EPBC Act and be listed in one of six categories. Definitions of these categories are summarised in **Appendix 7** (DCCEEW 2020).

Threatened or Priority flora occurring within 10 km of the survey area were generated from an Atlas of Living Australia search (Atlas of Living Australia 2024) and a Protected Matters Search Tool query (DCCEEW 2024). DBCA and WA Herbarium Threatened and Priority flora data downloads (DBCA 2023d) are provided in **Appendix 8**.

Sixty-three significant species were identified as potentially occurring within this search area. Of these, one taxon, *Acacia semitrullata* (P4), was considered 'likely' to occur and three species were considered to 'possibly' occur within the survey area. The remaining 59 taxa were thought to be 'unlikely' to occur, mainly because suitable habitat was not present. The species likely to occur and possibly occurring within the survey area are listed in **Appendix 9.** The locations of these significant flora are shown in **Figure 7** and within close proximity in **Figure 8** (DBCA 2023d).

A breakdown of the likelihood of occurrence (LoO) of all potential species according to conservation status is provided in **Table 8,** with the complete likelihood of occurrence assessment provided in **Appendix 9**.

Table 8. Likelihood of occurrence according to conservation status.

Likelihood of occurrence	Total number	Priority 1	Priority 2	Priority 3	Priority 4	Threatened
Likely	**1**	-	-	-	1	-
Possible	**3**	-	-	-	2	1
Unlikely	**59**	4	7	15	8	25
Total	**63**	**4**	**7**	**15**	**11**	**26**

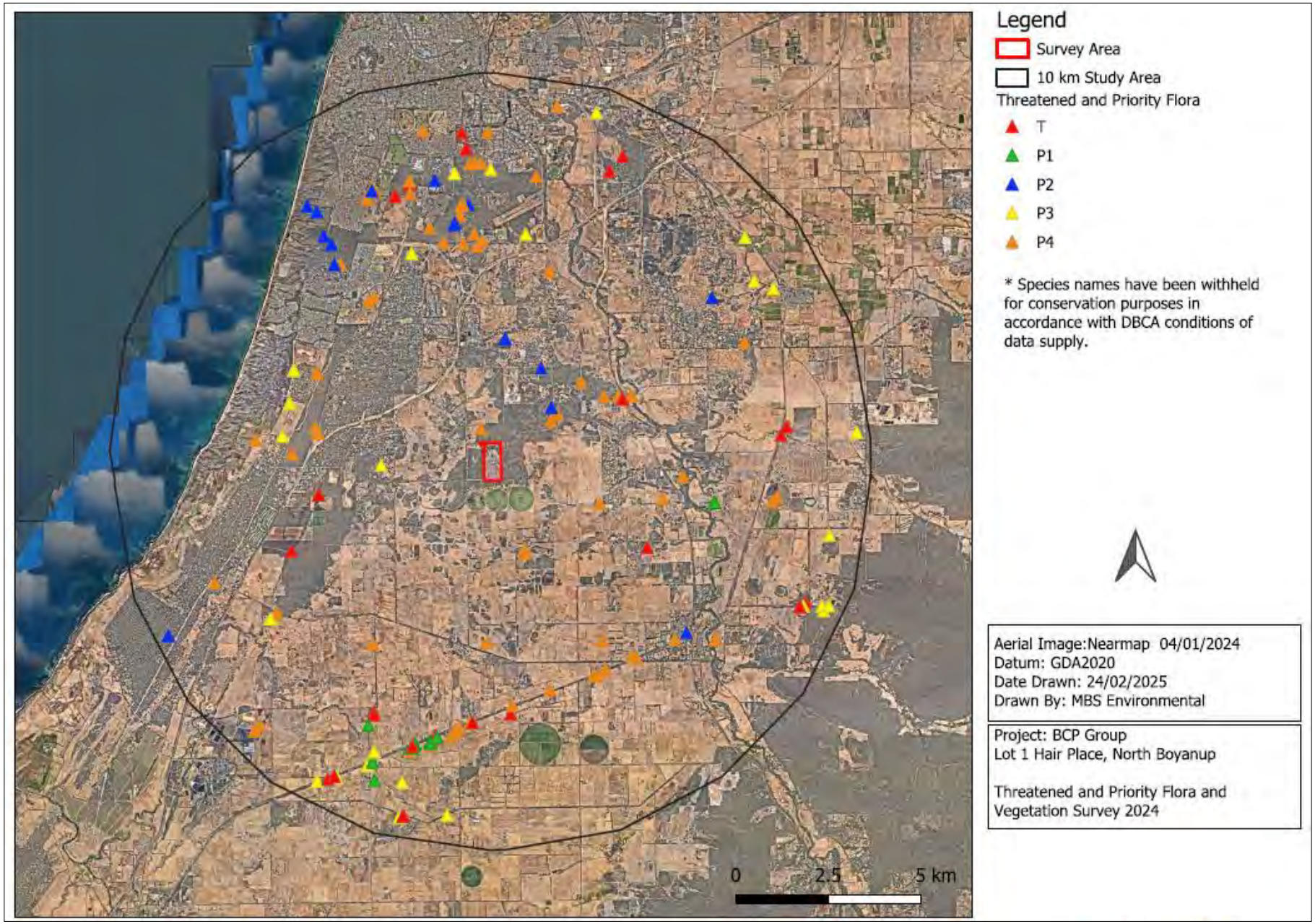

Figure 7. Threatened and Priority flora within the 10 km study area (DBCA 2023d).

Figure 8. Threatened and Priority flora in proximity to the survey area (DBCA 2023d).

4.6 Wetlands and water courses

4.6.1 Wetlands

Wetlands on the Swan Coastal Plain have been classified into types using the geomorphic wetland classification system of Semeniuk & Semeniuk (1995), which is based on the characteristics of landform and water permanence, for example, lakes, palusplains and damplands. These are described in **Table 9. .** The Swan Coastal Plain wetlands have also been evaluated and assigned an appropriate management category and corresponding category objective, providing guidance on the nature of the management and protection the wetland should be afforded. These categories are described in **Table 10.**

Table 9. Wetland types (adapted from Semeniuk & Semeniuk, 1995).

Management Category	Basin	Flat	Channel	Slope	Highland
Permanently inundated	Lake	-	River	-	-
Seasonally inundated	Sumpland	Floodplain	Creek	-	-
Intermittent inundation	Playa	Barlkarra	Wadi	-	-
Seasonally waterlogged	Dampland	Palusplain	Trough	Paluslope	Palusmont

Table 10. Definitions of and objectives for the different wetland management categories (EPA 2008).

Management Category	Definition	Category Objective
Conservation	Wetlands with high conservation value for both natural or human use.	To preserve wetland (natural) attributes and functions.
Resource Enhancement	Wetlands with moderate natural and human use attributes that can be restored or enhanced.	To restore wetlands through maintenance and enhancement of wetland functions and attributes.
Multiple Use	Wetlands that score poorly on both natural and human use attributes.	To use, develop and manage wetlands in the context of water, town and environmental planning.

The survey area does not occur within a wetland of any type (**Figure 9**). The closest surrounding wetlands are classified sumpland or dampland, the majority of which are Multiple Use. The nearest wetland to the survey area is a Multiple Use dampland 203 m directly south.

There is a Conservation category sumpland 1.14 km northeast of the survey area (**Figure 10**).

4.6.2 Watercourses

There are no watercourses or drainage lines within the study area (**Figure 2**). The nearest watercourse is 1.2 km west, which is part of the Five Mile Brook catchment (Crossman & Li 2015).

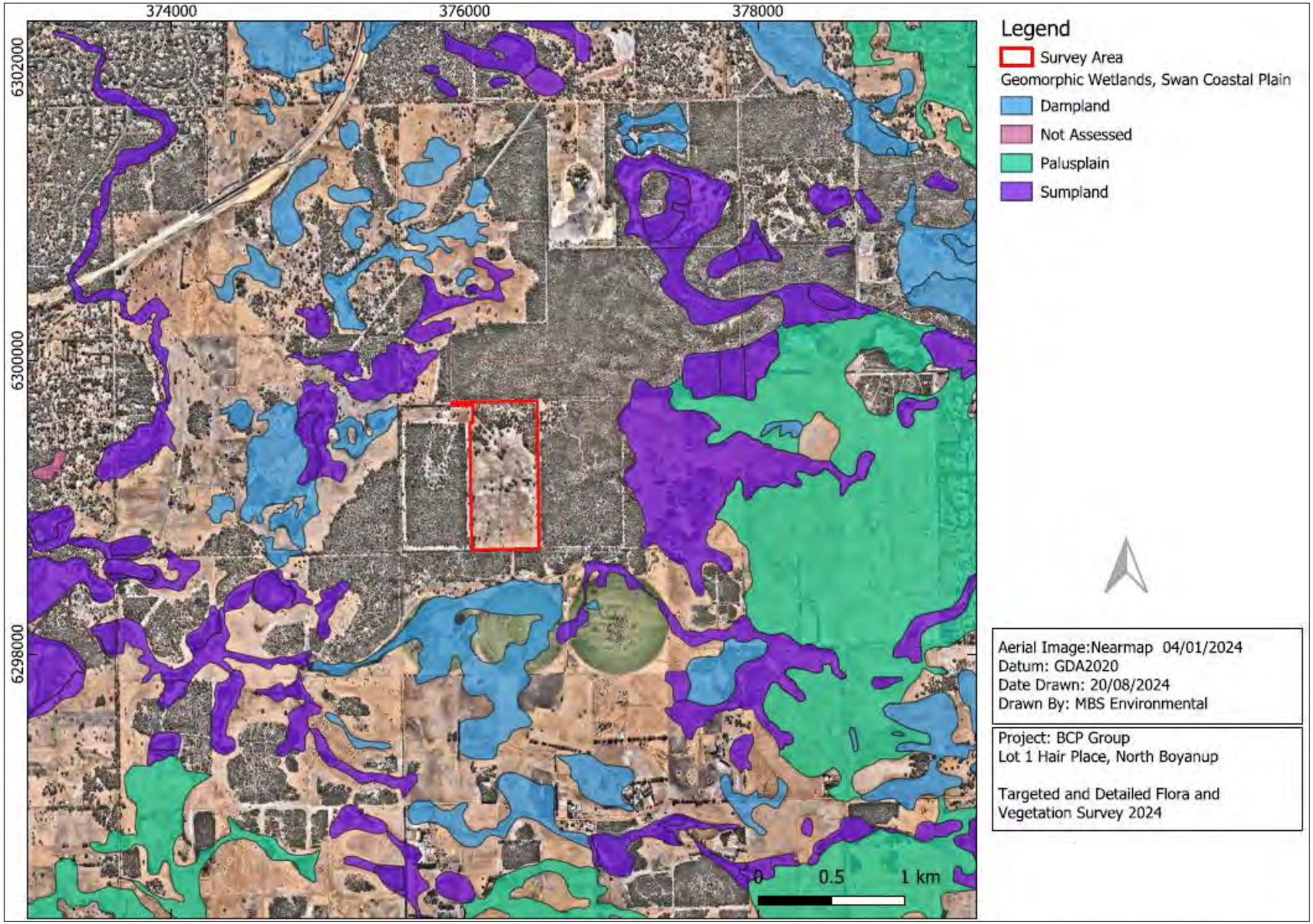

Figure 9. Geomorphic wetland type and watercourses in proximity to the survey area (DBCA 2022).

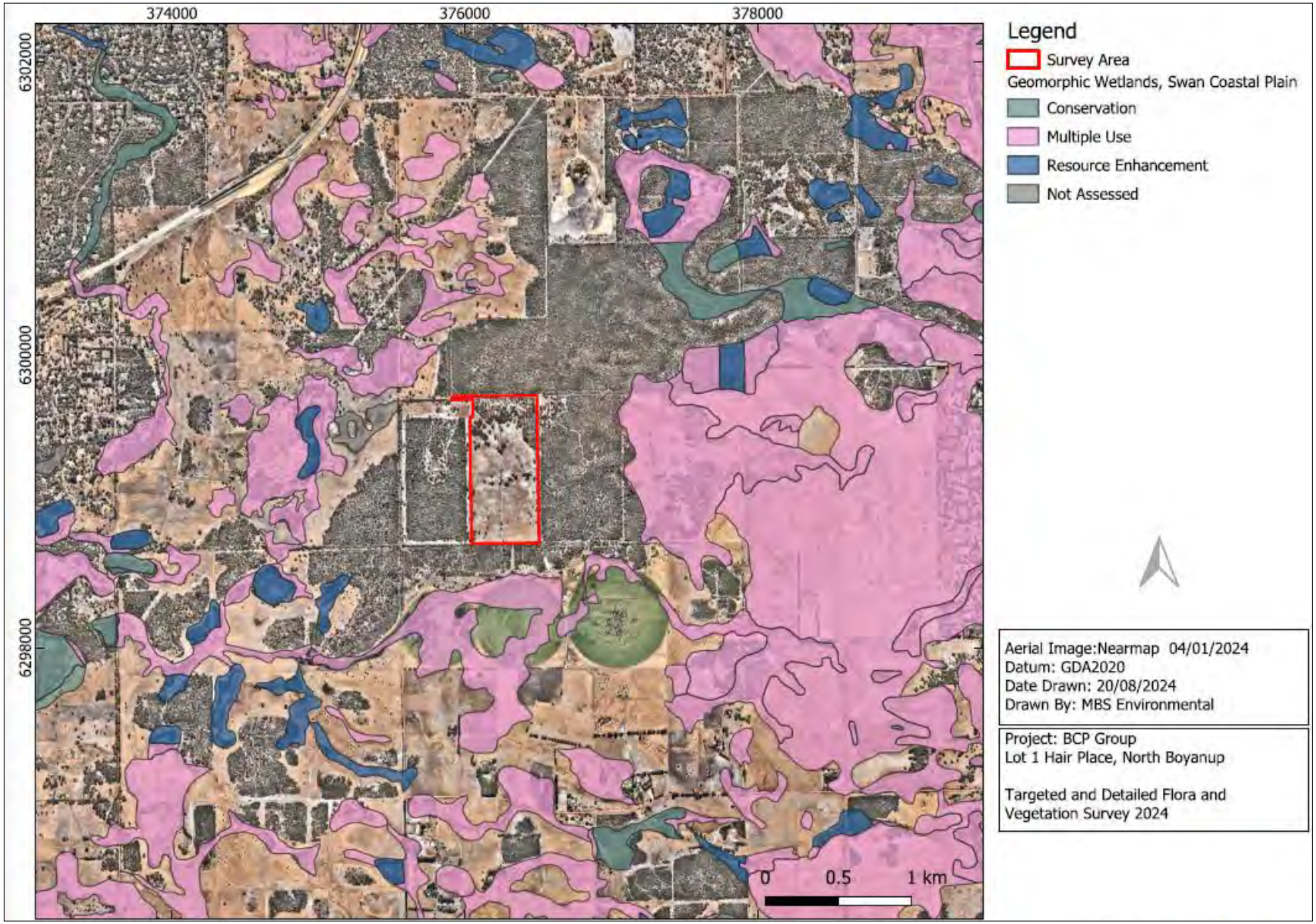

Figure 10. Geomorphic wetland status within and in proximity to the survey area (DBCA 2022).

4.7 Regional ecological linkages

Regional ecological linkages "link protected patches of regional significance by retaining the best (condition) patches available as steppingstones for flora and fauna between regionally significant areas" (Molloy et al. 2009).

Regional ecological linkages have been mapped by Molloy et al. (2009) across the south west of Western Australia in an area spanning between just north of Mandurah to Walpole in the southeast.

Molloy et al. (2009) assessed and assigned "proximity value" (pv) ratings to all patches of remnant native vegetation as a way of indicating the value of their connectivity with regional ecological linkages. This was based on their distance from the nearest mapped regional ecological linkage axis line and connected parcels of remnant vegetation (**Table 11**).

Table 11. Linkage proximity values rating assigned to patches of remnant vegetation within a landscape from Molloy et al. (2009).

Proximity value	Description
1a	with an edge touching or < 100 m from a linkage
1b	with an edge touching or < 100 m from a natural area selected in 1a
1c	with an edge touching or < 100 m from a natural area selected in 1b
2a	with an edge touching or < 500 m from a linkage
2b	with an edge touching or < 500 m from a natural area selected in 2a
2c	with an edge touching or < 500 m from a natural area selected in 2b
3a	with an edge touching or < 1000 m from a linkage
3b	with an edge touching or < 1000 m from a natural area selected in 3a
3c	with an edge touching or < 1000 m from a natural area selected in 3b

One regional ecological axis line, mapped by Molloy et al. (2009), bisects the survey area (**Figure 11**). This is the Dalyellup / Gelorup / Crooked Brook Ecological Linkage. Vegetation within the survey area has been mapped as 1a, approximately 8.2 ha in the north and northeast area of the property. The majority of the survey area has not been assigned a proximity value due to the extent of previous clearing and other disturbances.

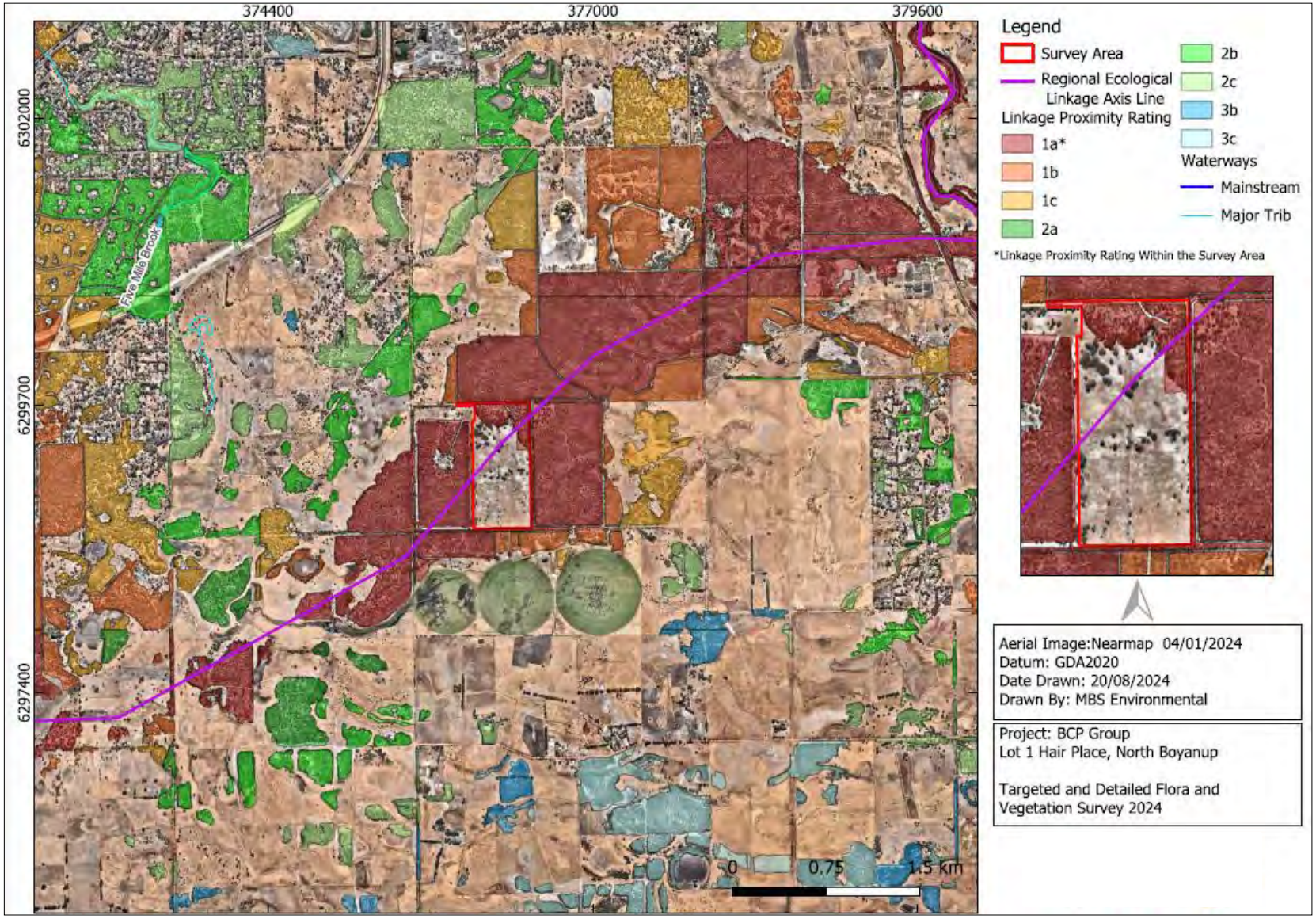

Figure 11. The survey area in relation to regional ecological linkages (Molloy et al. 2009).

4.8 Environmentally Sensitive Areas

ESAs are protected under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004. They are selected for their environmental values at State or National levels (Government of Western Australia 2005). They include:

- Defined wetlands and riparian vegetation within 50 m
- Areas covered by Threatened ecological communities
- Area of vegetation within 50 m of Threatened flora
- Bush Forever sites
- Declared World Heritage property sites.

There are no mapped ESAs within the survey area (**Figure 12**). The closest ESA is located 1.13 km to the northeast of the survey area and is associated with a conservation category wetland.

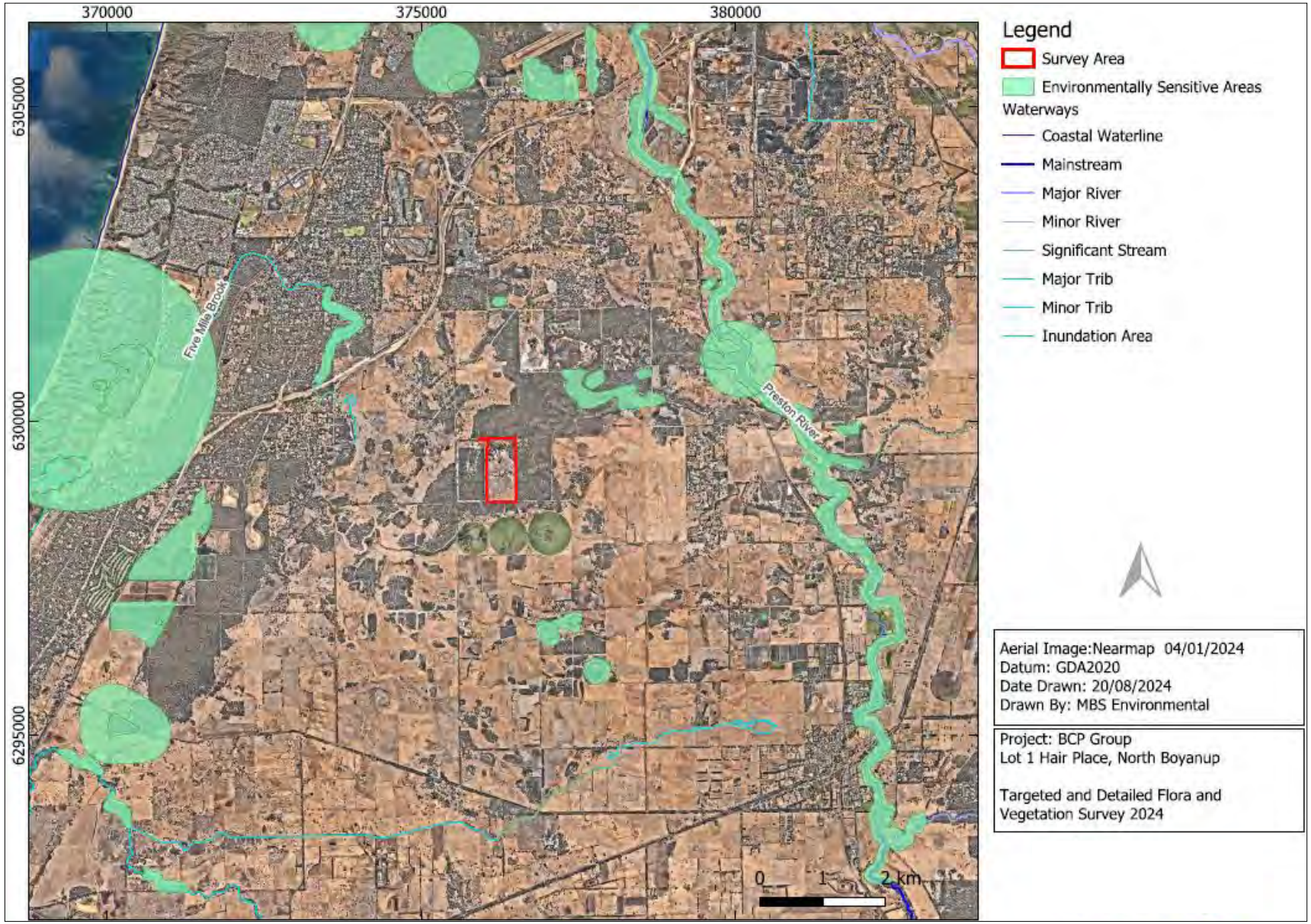

Figure 12. ESAs within study area (DWER 2021).

5 Survey results

5.1 Flora

One hundred and fourteen taxa of flora were identified within the survey area, of which 22 (19%) were introduced taxa (**Appendix 10**). The relatively high proportion of non-native species can be ascribed to the high level of disturbance over most of the survey area.

The most frequent plant families were Fabaceae (16 taxa of which 3 were introduced), Myrtaceae (12 taxa), and Orchidaceae and Proteaceae (both with 10 taxa).

5.1.1 Threatened and Priority flora

No flora listed as Threatened under the Commonwealth EPBC Act 1999, or under the BC Act 2016 were found within the survey area. However, eight individual plants of the Priority 3 shrub *Verticordia attenuata* and three plants of the Priority 4 shrub *Acacia semitrullata* (in three locations) were found in the northeast of the survey area. The locations of the Priority flora are shown in **Figure 13**.

5.1.2 Post likelihood of occurrence

Apart from the one P3 (*Verticordia attenuata*) and one P4 species (*Acacia semitrullata*) that were found, all Threatened or Priority taxa potentially occurring in the survey area were assigned a post-survey residual likelihood of "Unlikely". In virtually all cases, this was due to the absence of suitable habitat (e.g., soil type, hydrology). The Threatened species *Drakaea elastica* had previously been found just 3.5 km east northeast of the survey area; however, despite careful searching in August, its optimum identification period (DEC 2009), none were found within the survey area.

A summary of the post survey likelihood of occurrence according to conservation status is provided in **Table 12.**

Table 12. Vascular flora post survey likelihood of occurrence according to conservation status.

Likelihood of occurrence	Total No.	Priority 1	Priority 2	Priority 3	Priority 4	Threatened
Recorded[6]	**2**	-	-	1	1	-
Unlikely	**62**	4	7	14	11	26
Total	**64**	**4**	**7**	**15**	**12**	**26**

[6] This includes one species, *Verticordia attenuata*, which was not identified in the pre-survey assessment.

5.2 Declared Pest Plants or Weeds of National Significance

A single individual of the Declared Pest Plant, **Gomphocarpus fruticosus* (Narrow leaf cotton bush), was found in the survey area.

Narrow leaf cotton bush has a C3 (management) control category under the *Biosecurity and Agriculture Management Act* 2007 (BAM Act).

The location of this pest plant is shown in **Figure 14**.

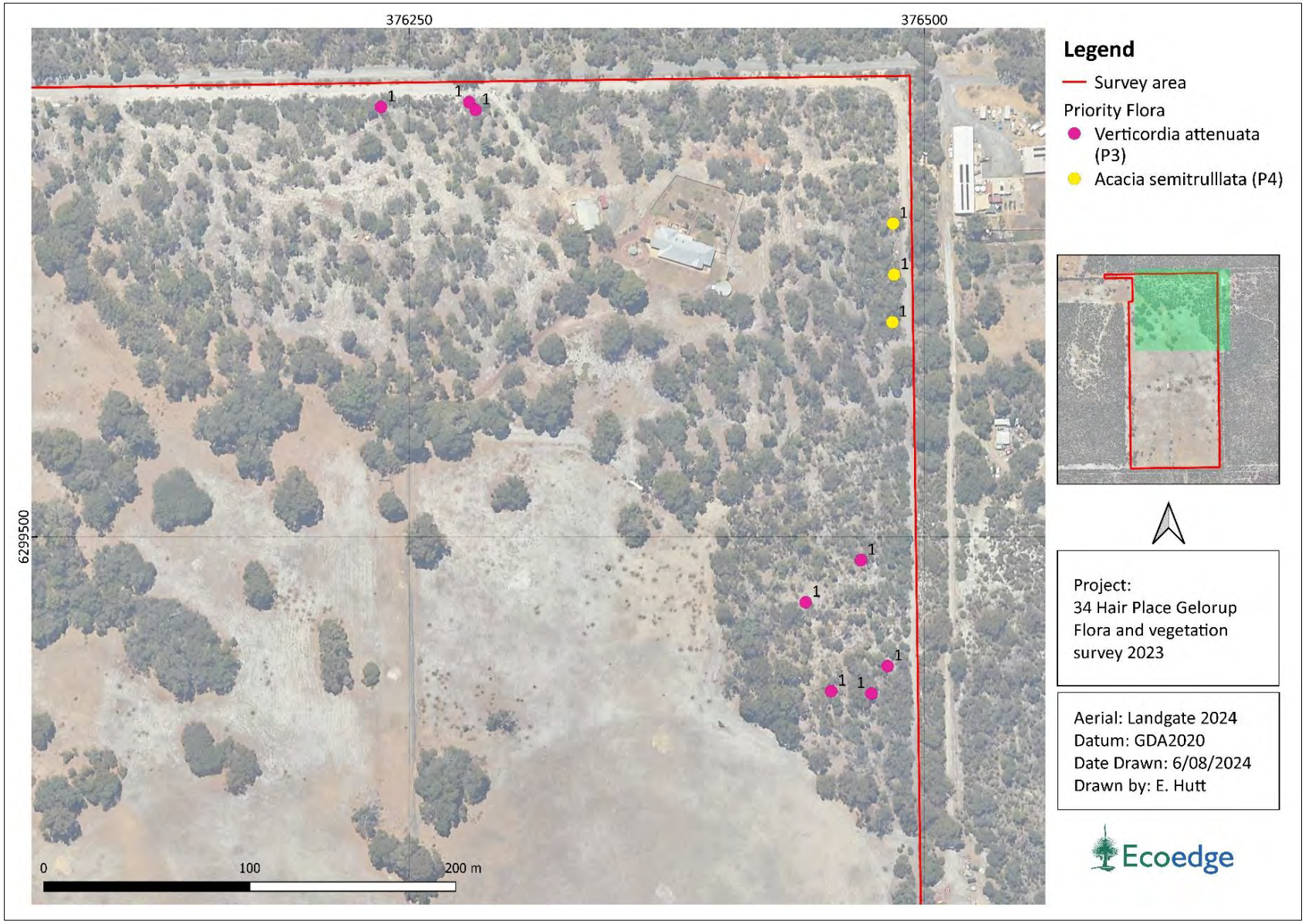

Figure 13. Location and abundance of State listed significant flora recorded within the survey area.

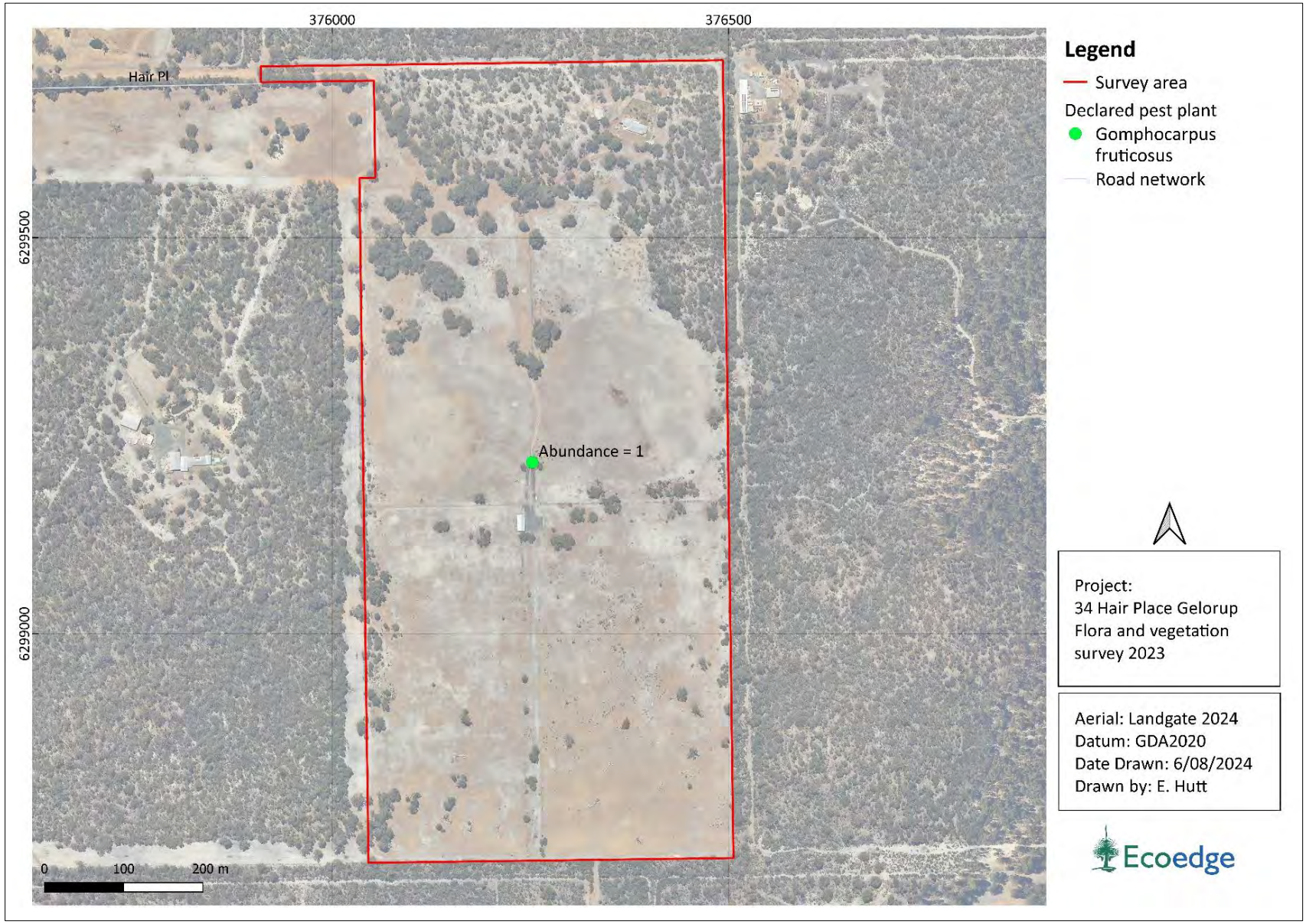

Figure 14. Location of Declared Pest plants recorded within the survey area.

5.3 Vegetation units

Two vegetation units were recognised and mapped within the survey area (unit A and unit B) and are described below using their structurally dominant species. Additionally, there were areas mapped as cleared, primarily pastureland with some tracks. In total, there were approximately 9.9 ha of native vegetation in the 46.4 ha survey.

A breakdown of the areas, condition categories and occurrences of Banksia woodland TEC for each of the vegetation units is given in **Table 13** and **Table 14** and shown in **Figure** 15**.**

Detailed descriptions of the vegetation units are provided in **Table 15**.

Table 13. Vegetation units and condition in the survey area.

Veg Unit	Condition	Area (ha)	%
A	Very Good	1.25	19.3
	Good	4.04	62.0
	Degraded	1.22	18.7
	Total	**6.51**	**100.00**
B	Very Good	0.14	4.2
	Good	1.59	46.8
	Degraded	1.42	41.7
	Completely Degraded	0.25	7.3
	Total	**3.41**	**100.00**
Cleared		36.46	

Table 14. Vegetation units and occurrence of Banksia woodlands TEC in the survey area.

Veg	Condition	Area (ha)	%
A	Very Good	1.25	20.4
	Good	3.92	64.0
	Degraded	0.96	**15.6**
	Total	**6.13**	**100.00**
B	Very Good	0.14	10.4
	Good	0.94	68.0
	Degraded	0.30	21.5
	Total	**1.38**	**100.00**

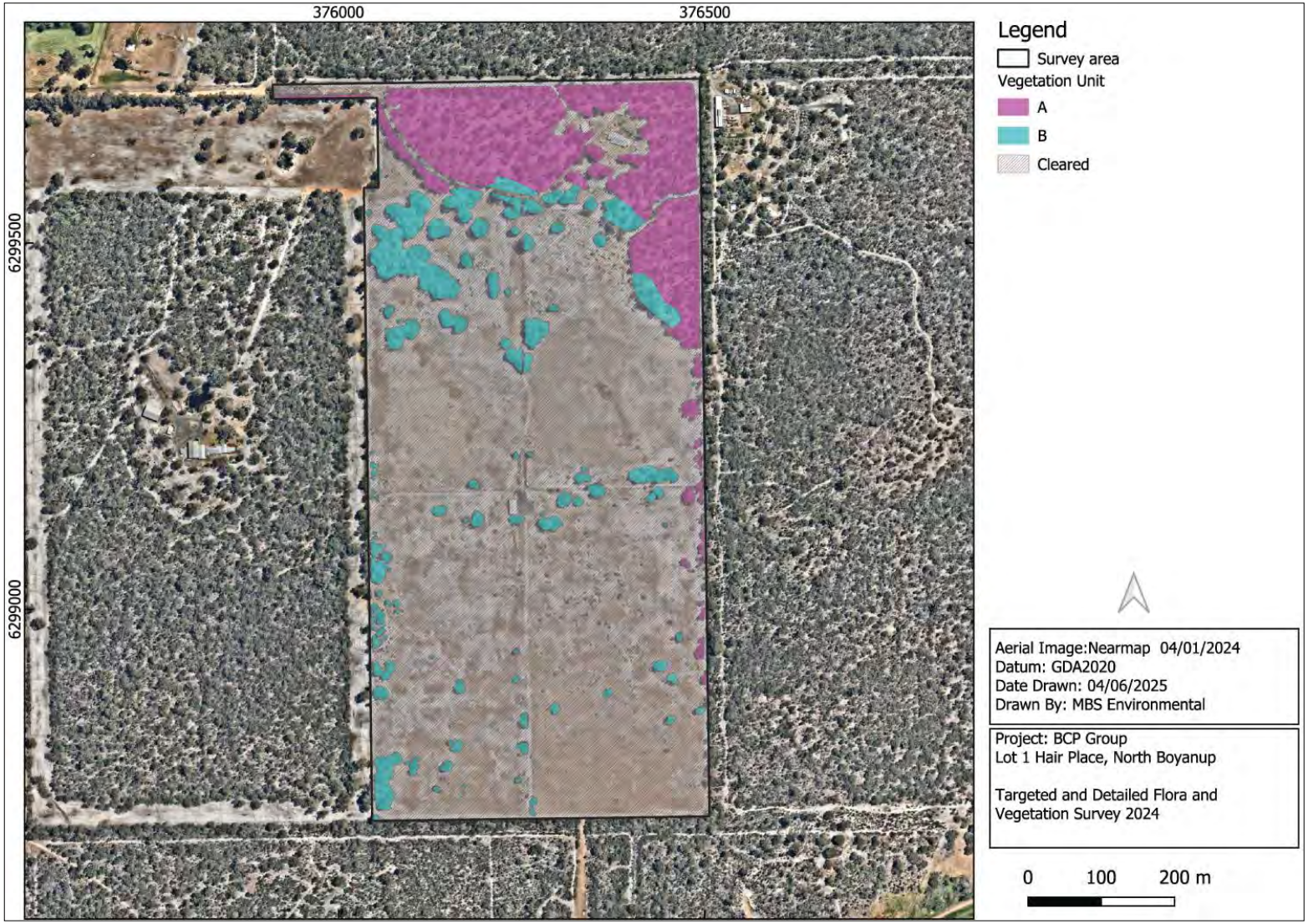

Figure 15. Vegetation units within the survey area.

Table 15. Vegetation units within the survey area.

Vegetation Unit	Description	Photograph	Area
Unit A	Mid woodland of *Eucalyptus marginata* over low woodland of *Banksia attenuata* and *Xylomelum occidentale* over very open tall shrubland of *Kunzea glabrescens* over open low/mid shrubland of *Acacia pulchella* var. *glaberrima*, *Calytrix fraseri*, Dasypogon bromeliifolius, *Daviesia divaricata*, *Hibbertia hypericoides*, *Macrozamia riedlei*, *Stirlingia latifolia* and *Xanthorrhoea brunonis* over very open forbland including *Caladenia flava*, *Drosera pallida*, *Chamaescilla versicolor*, *Phlebocarya ciliata*, *Stylidium brunonianum* and *Trachymene pilosa* on grey or yellow-brown sand. (Some parts of this unit qualify as the Banksia woodlands of the Swan Coastal Plain TEC).		6.51 ha
Unit B	Mid open forest of *Corymbia calophylla* (and occasionally *Eucalyptus marginata*) over open low woodland of *Xylomelum occidentale*, (occasionally also *Agonis flexuosa*, *Banksia attenuata*, *B. ilicifolia* or *Nuytsia floribunda*) with patches of *Hibbertia cuneiformis* or *Kunzea glabrescens* tall shrubland over low/mid shrubland of *Daviesia divaricata*, *Jacksonia horrida*, *Stirlingia latifolia* and *Xanthorrhoea brunonis* over very open sedgeland of *Cyathochaeta avenacea* and *Mesomelaena tetragona* and open grassland including *Briza maxima* and *Ehrharta longiflora* on grey loamy-sand. (Some parts of this unit qualify as the Banksia woodlands of the Swan Coastal Plain TEC).		3.41 ha

5.4 Vegetation condition

Most native vegetation in the survey area was in Good (56.8%) or Degraded (26.7%) condition (**Table 16**). Vegetation condition is mapped in **Figure 16**. The slashing of the understorey within much of the Banksia woodland in the northern part of the survey area has caused some changes in the density of the vegetation.[7]

Table 16. Vegetation condition of native vegetation in the survey area.

Condition	Area	%
Very Good	1.40	14.1
Good	5.63	56.8
Degraded	2.64	26.7
Completely Degraded	0.24	2.4
Total	**9.9**	**100.00**

[7] This has taken place since January 2021 based on Google Earth imagery.

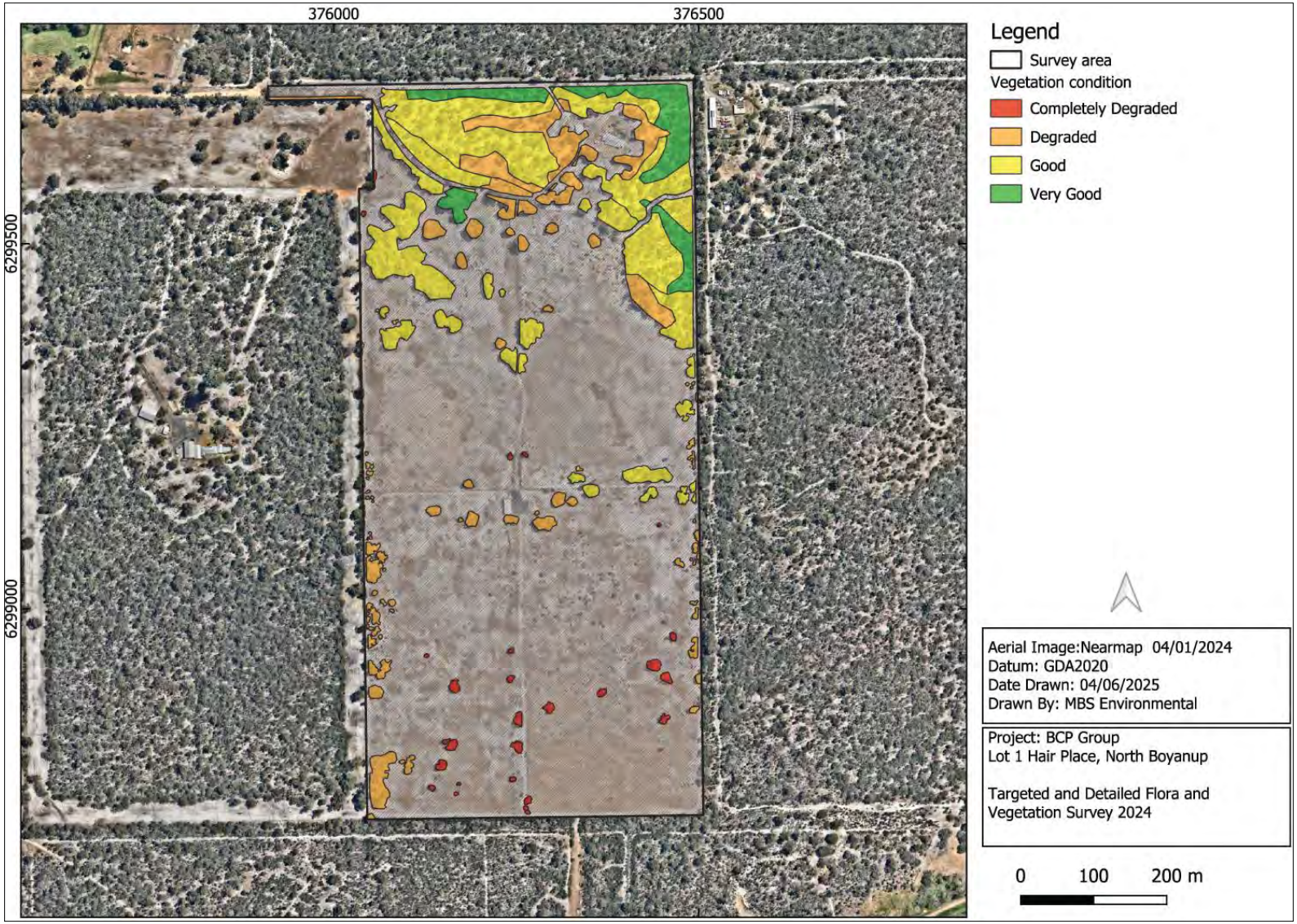

Figure 16. Vegetation condition within the survey area.

5.5 Multivariate analysis and comparison of floristic quadrat data

As described in **the sub-section 3.3**, floristic data from the six survey area quadrats was compared to the quadrat data from the Floristic Survey of the Southern Swan Coastal Plain (Gibson et al. 1994). This analysis (MVA) was used to determine which floristic community types (FCTs) of those described by Gibson et al. (1994) the vegetation in the survey area is most like. The recommended methodology for this is addressed in DBCA (2024b).

There two main outputs from the MVA were dendrograms and a table of coefficients of similarity between individual quadrats. Because of the size and complexity of the dendrogram and table of coefficients they are not reproduced in this report, however the results are presented as a summary in **Table 17** below and an extract shown in Error! Reference source not found..

In most cases, the results of the single site insertion (represented in **Table 17** by the similarity coefficient of the five most similar quadrats) gave a similar result to the analysis, where all quadrats were compared simultaneously to the comparison dataset. For five of the quadrats, the assignment of FCT is clearly either FCT21a or FCT21c, although the coefficients of similarity are quite low, being between 0.3 and 0.5 (i.e. having between 30% and 50% of species in common).

However, in the case of quadrat HAIR01, the single-site insertion gave a quite different result. The dendrogram showed that it grouped with two quadrats designated as FCT03c, whereas the most similar quadrats following single-site insertion were both assigned to FCT21c. None of the five most similar quadrats (in terms of species composition) was FCT03c. Quadrat HAIR01 occurs on a damp flat with *Corymbia calophylla* as the dominant overstorey species, which is also typical of FCT03c (*Corymbia calophylla* - *Xanthorrhoea preissii* woodlands and shrublands of the Swan Coastal Plain). However, *Banksia attenuata* is also present, which is not the case with occurrences of FCT03c. Additionally, HAIR01 occurs on the Bassendean Dunes soil-landscape, rather than the Pinjarra Plain soil-landscape, as is typical with FCT03c.

Consequently, HAIR01 is assigned to FCT21c, despite having an atypical species composition, which may have been caused by a history of livestock grazing in the bush, and it had been recently burned.

Because of the modification of the understorey of much of the bushland at the northern end of the survey area, it is not possible to map the parts that are FCT21a and those that are FCT21c; however, it can be assumed that the lower-lying areas are more likely to be FCT21c.

Table 17. Summary of the results from the MVA that compared the survey area quadrats with quadrats from the Swan Coastal Plain survey of Gibson et al (1994).

Survey Quadrat	Single site insertion - Gibson et al 1994						Comparison of typical and other common species.	Recommended FCT
	Quadrat	FCT	Similarity	Dendrogram	Likely FCTs	Likely FCT Landform		
HAIR01	low06b	21c	0.233	HAIR01 is clustered with two quadrats designated FCT03c, and part of a larger grouping with mainly FCT06 and FCT11 quadrats	FCT21c (but low similarity)	On grey-brown loamy sand on Bassendean Dunes - suitable for FCT21c	Shares few Typical or other Common species with FCT21a (5 in total) - some affinities with FCT03c but on the wrong soil-landscape.	Atypical form of FCT21c
	low01	21c	0.212					
	WATER-2	13	0.211					
	YAN-9	28	0.211					
	card7	21a	0.200					
HAIR02	GUTHR-6	21a	0.432	HAIR02 is clustered with three FCT21c quadrats	FCT21c	On grey-brown loamy sand on Bassendean Dunes - suitable for FCT21c	Shares 9 of 23 Typical and Other Common taxa with FCT21c.	FCT21c
	HARRY-4	23a	0.380					
	MHENRY-2	30a	0.375					
	BULLER-2	21a	0.357					
	RAAF-3	23b	0.356					
HAIR03	MANEA-2	21a	0.414	HAIR03 is clustered with seven quadrats designated as FCT21a	FCT21a	On yellow-brown sand on Bassendean Dunes - suitable for FCT21a	Shares 13 of 32 Typical and Other Common taxa with FCT21a.	FCT21a
	HARRY-4	23a	0.400					
	PLINE-2	23b	0.400					
	card9	20b	0.390					
	GUTHR-6	21a	0.382					
HAIR04	RAAF-3_23b	23b	0.377	HAIR04 is clustered with two FCT21c and two FCT11 quadrats	FCT21a	On yellow-brown sand on Bassendean Dunes - suitable for FCT21a	Shares 15 of 32 Typical and Other Common taxa with FCT21a.	FCT21a
	MANEA-2_21a	21a	0.352					
	TWIN-7_21c	21c	0.351					
	AUSTRA-1_21a	21a	0.349					
	CORON-1_21a	21a	0.345					
HAIR05	AUSTRA-1	21a	0.469	HAIR05 is clustered with seven quadrats designated as FCT21a	FCT21a	On grey-brown sand on Bassendean Dunes - suitable for FCT21a	Shares 13 of 32 Typical and Other Common taxa with FCT21a.	FCT21a
	BULLER-2	21a	0.429					
	RIVD-1	12	0.421					
	card7	21a	0.406					
	BULLER-1	21a	0.405					
HAIR06	CAPEL-2	21b	0.474	HAIR06 is clustered with five FCT21c quadrats	FCT21c	On grey-brown sand on Bassendean Dunes - suitable for FCT21c	Shares 11 of 23 Typical and Other Common taxa with FCT21c.	FCT21c
	FL-6	21c	0.406					
	WHILL-5	26b	0.405					
	NINE-1	21a	0.395					
	CAPEL-7	21a	0.395					

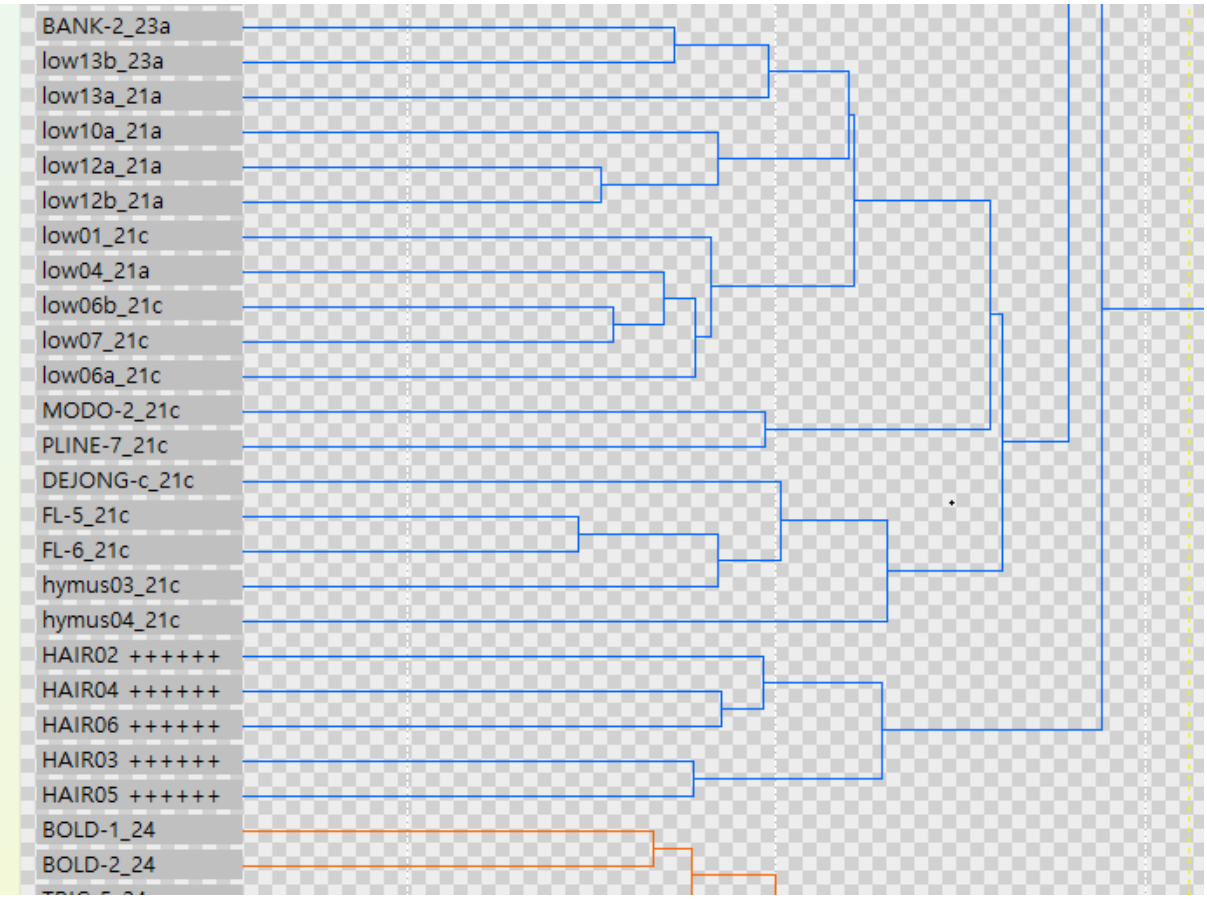

Figure 17. Extract of the MVA dendrogram showing the Hair Place quadrats.

5.6 Banksia Woodlands of the SCP TEC and PEC Assessment

Vegetation units A and B being a woodland co-dominated by *Banksia attenuata* meet the first criteria to be considered as an occurrence of the nationally listed TEC 'Banksia Woodlands of the Swan Coastal Plain'. However, occurrences of this community are limited to patches[8] that meet the following key diagnostic characteristics, condition thresholds and minimum patch sizes:

Step 1: use the key diagnostic characteristics to determine if the community is present,

Step 2: determine the condition of the patch,

Step 3: consider if the patch meets the minimum size threshold,

Step 4: the surrounding context of the patch that must also be taken into account when considering factors that add to the importance of the patch.

Table 18 outlines the steps of Banksia woodland TEC assessment (TSSC 2016)[9].

Table 18. Outline of the Banksia woodland TEC Assessment (TSSC 2016)

Step	Discussion
1	The canopy of vegetation within the survey area is co-dominated by *Banksia attenuata* meaning that it meets first of the key diagnostics of the Commonwealth-listed 'Banksia Woodlands of the Swan Coastal Plain' TEC and of the Priority 3 'Banksia woodlands of the Swan Coastal Plain' (TSSC 2016). The two units are contiguous and all areas of this vegetation within 30 m of another area is considered to be one patch.
2	To meet the condition criterion, the patch needs to be on average in Good or better condition. • The area of units A and B within the survey area in Good-or-better condition is 6.26 ha – which is sufficient to meet the area criterion.[10] There is also extensive Banksia woodland in Very Good condition to the north and east of, and contiguous with the survey area.
3	Much of the Degraded-or-better condition Banksia woodland within the survey area exceeds the minimum size threshold of 2 ha and is adjacent (< 30 m from) the large areas of Good-and-better condition Banksia woodland on properties bordering the survey area and this also is considered to be the TEC.
4	**Conclusion**: The Banksia woodland within the survey area is an occurrence of the Commonwealth-listed 'Banksia Woodlands of the Swan Coastal Plain' TEC and also the State-listed PEC of the same name.

[8] A patch is a discrete and mostly continuous area of an ecological community. It may include small-scale (< 30m) gaps, variations and disturbances such as tracks, paths or breaks (such as watercourses) or localized variations in the community (TSSC 2016).

[9] Boundaries for a patch may extend beyond a site boundary or potential area of impact for a proposed action.

[10] There needs to be at least 1 ha of Very Good condition vegetation.

5.7 Significance of vegetation

There is an occurrence within the survey area of the 'Banksia woodlands of the Swan Coastal Plain' TEC, which is listed under the EPBC Act as 'Endangered' and is a Priority 3 ecological community in Western Australia. Based on the patch assessment in Section 5.6, the TEC/PEC occurrence within the survey area totals 7.51 ha, as shown on **Figure 18**.

Based on results of the statistical analysis of the six floristic quadrats installed in the survey area (see **sub-sections 5.5**), FCT21c (Low lying *Banksia attenuata* woodlands or shrublands) is present within the northern part of the survey area. This FCT is listed as a Priority 3 PEC in Western Australia. The other FCT identified within the survey area, FCT21a (Central *Banksia attenuata* - *Eucalyptus marginata* woodlands), is not listed as a PEC or TEC on its own. Both FCT21a and FCT21c are components of the Commonwealth-listed TEC 'Banksia Woodlands of the Swan Coastal Plain' when meeting minimum patch size and condition thresholds.

As noted earlier, the extent of FCT21c could not be mapped during the survey due to modification of the understorey of much of the bushland at the northern end of the survey area, however, FCT21c would be expected to be limited to the lower lying areas of the remaining native vegetation in the northern part of the survey area.

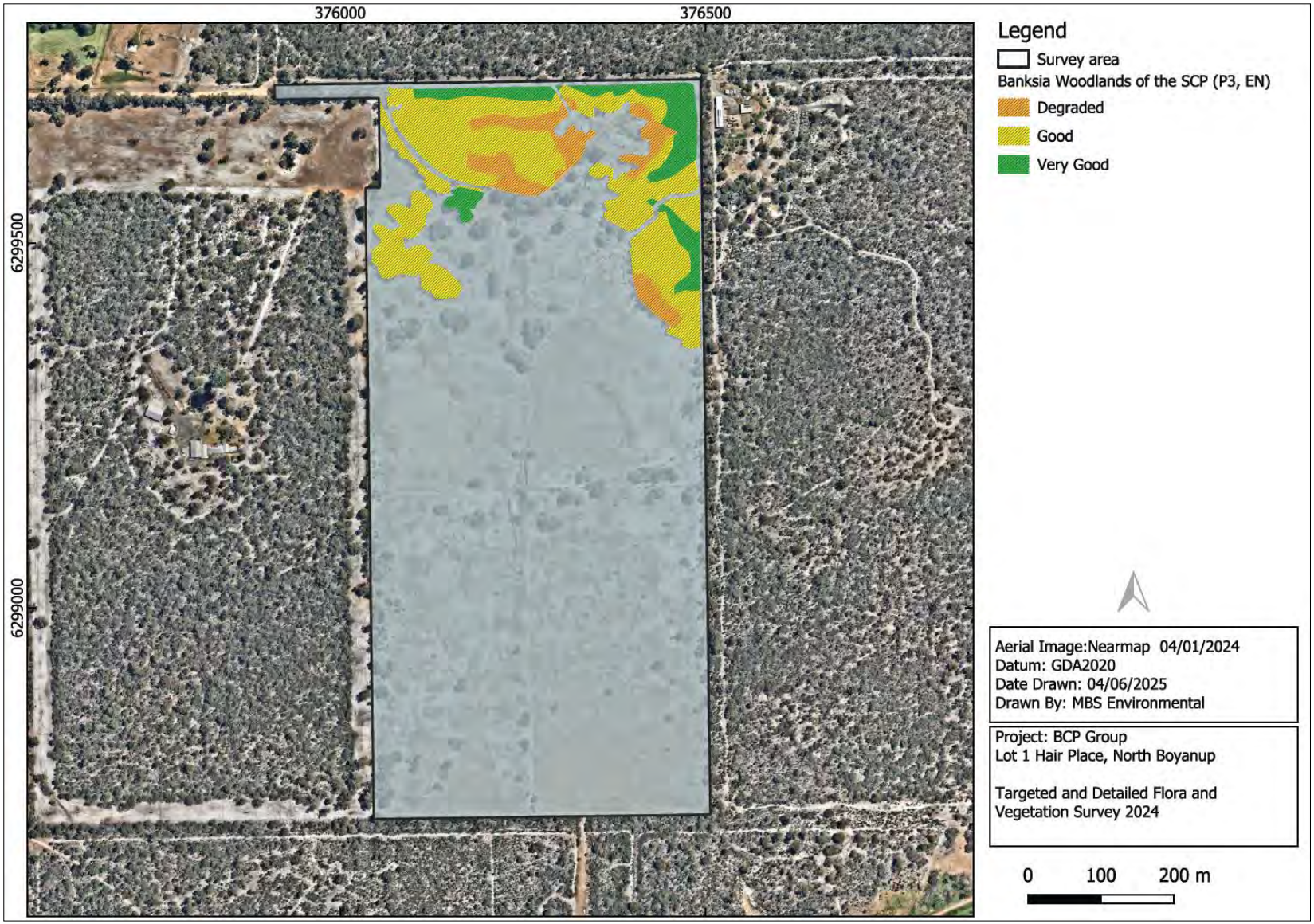

Figure 18. Location and condition of TEC/PEC 'Banksia Woodlands of the Swan Coastal Plain' within the survey area.

6 Discussion and conclusions

6.1 Significance of the flora

No flora listed as Threatened under the Commonwealth EPBC Act 1999, or under the BC Act 2016, were found within the survey area. However, eight individual plants of the Priority 3 shrub *Verticordia attenuata* and three plants of the Priority 4 shrub *Acacia semitrullata* (in three locations) were found in the north-east of the survey area.

Verticordia attenuata (P3) has a restricted distribution and only occurs on the Swan Coastal Plain between Binningup and Bunbury on damp, grey sands. *Acacia semitrullata* (P4) has a broader distribution, from Mandurah to Busselton on the Swan Coastal Plain, with outliers on the Blackwood Plateau south of Busselton and in the Collie basin. It is generally found on sandy soils.

The DBCA flora reporting forms are provided in **Appendix 11**.

6.2 Likelihood of occurrence assessment

Sixty-three significant species were identified as potentially occurring within this search area in the pre-survey assessment. Of these, one taxon, *Acacia semitrullata* (P4), was considered 'Likely' to occur, and three species were considered to 'possibly' occur within the survey area. The remaining 59 taxa were thought to be 'Unlikely' to occur, mainly because suitable habitat was not present.

The post-survey assessment identified one taxa (*Acacia semitrullata*, P4) as present in the survey area, with the other 62 taxa considered Unlikely to be present in the survey area. In almost every case this was because potential habitat was not present. In addition, a thorough survey at an appropriate time of year failed to find the three taxa where suitable habitat was present.

In addition, *Verticordia attenuata* (P3), which had not been identified in the pre-survey assessment, was found within the survey area.

6.3 Significance of the vegetation

There is an occurrence totalling 7.51 ha of the 'Banksia woodlands of the Swan Coastal Plain' TEC, which is listed under the EPBC Act as 'Endangered' and is a Priority 3 ecological community in Western Australia.

Statistical analysis of the quadrat data collected in the survey area showed that two FCTs were present, FCT21a (Central *Banksia attenuata-Eucalyptus marginata* woodlands) and FCT21c (Low-lying Banksia woodlands and shrublands). These are components of the Commonwealth-listed TEC 'Banksia Woodlands of the Swan Coastal Plain' (state Priority 3 PEC) when meeting patch size and condition thresholds. FCT21c is also listed as Priority 3 PEC at the state level.

The DBCA TEC reporting forms are provided in **Appendix 12**.

6.4 Vegetation complexes and associations

One vegetation complex is mapped as occurring within the survey area: the Bassendean Complex, specifically Central and South. The vegetation unit described for the survey is broadly representative of the described complex. The Bassendean Complex - Central and South has less than 30% of its pre-European extent remaining.

There is one of Beard's vegetation associations mapped within the survey area: Association 1000 'Mosaic: Medium forest; jarrah-marri / Low woodland; banksia / Low forest; teatree (Melaleuca spp.)'. This association is a reasonable match for survey area vegetation units. It has less than the desired target of 30% of its pre-European extent remaining at all assessment tiers.

6.5 Regional ecological linkages

The Dalyellup / Gelorup / Crooked Brook Ecological Linkage bisects the survey area (Molloy et al. 2009). This area has been assigned the highest tier proximity value rating of 1a in the north and northeast section of the survey area, with the remainder of the survey area unassigned a proximity value due to clearing and past disturbance.

6.6 Environmentally sensitive areas

The survey area does not intersect a mapped ESA, with the nearest ESA located 1.13 km to the northeast and is associated with a conservation category wetland.

6.7 Wetlands and watercourses

None of the vegetation in the survey area is considered riparian in nature and is not growing in association with a wetland.

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Appendix 1. Threatened and Priority flora Likelihood of occurrence assessment methodology.

Rating	Presurvey rationale	Post survey rationale
Recorded		Taxon was or has been recorded in the survey area.
Likely	Known to occur within two kilometres (km) of the survey area with suitable habitat known or predicted to occur within the survey area.	The taxon is known to occur within one km of the survey area and very suitable habitat was present, but the taxon was not observed for one of the following reasons. **L1.** The taxon was dormant at the time of survey and could therefore not be located. **L2.** The habitat was compromised, for example due to a recent fire. **L3.** The taxon is non- descript and or very small and difficult to find because, for example, it occurs in large areas of rocky granite outcrops, or within an expanse of open water. **L4.** The taxon is non-descript and or very small and may be overlooked.
Possible	Known to occur within a two-ten km of the survey area with suitable habitat known or predicted to occur within the survey area.	The taxon is known from within a two to 10 km radius of the survey area, and suitable habitat for the species was present, but despite a thorough search being carried out, the species was not observed. The taxon may however be present for any of the following reasons. **P1.** The taxon was dormant at the time of survey and could therefore not be located. **P2.** The taxon was not flowering at time of survey and could have been overlooked **P3.** The habitat was compromised, for example, due to a recent fire. **P4.** The taxon is non- descript and or very small and difficult to find because, for example, it occurs in large areas of rocky granite outcrops, or within an expanse of open water. **P5.** The taxon is non-descript and or very small and may have been overlooked. **P6.** Portions of the survey area with potential habitat could not be accessed, for example due to access restrictions.
Unlikely	Known or predicted to occur within ten km, but no suitable habitat is known or predicted to occur within the survey area.	The taxon was not found and is unlikely to be present for one or more of the following reasons: **U1.** A thorough search for the taxon was conducted and no suitable habitat was present given that the taxon is known to be generally restricted to a clearly defined habitat type. **U2.** Suitable or potential habitat was present and appropriately searched, but the taxon was not observed. **U3.** Suitable or potential habitat was present, but these areas were too degraded for the taxon to occur, for example, due to weed invasion and/or clearing.

Appendix 1. Threatened and Priority flora Likelihood of occurrence assessment methodology.

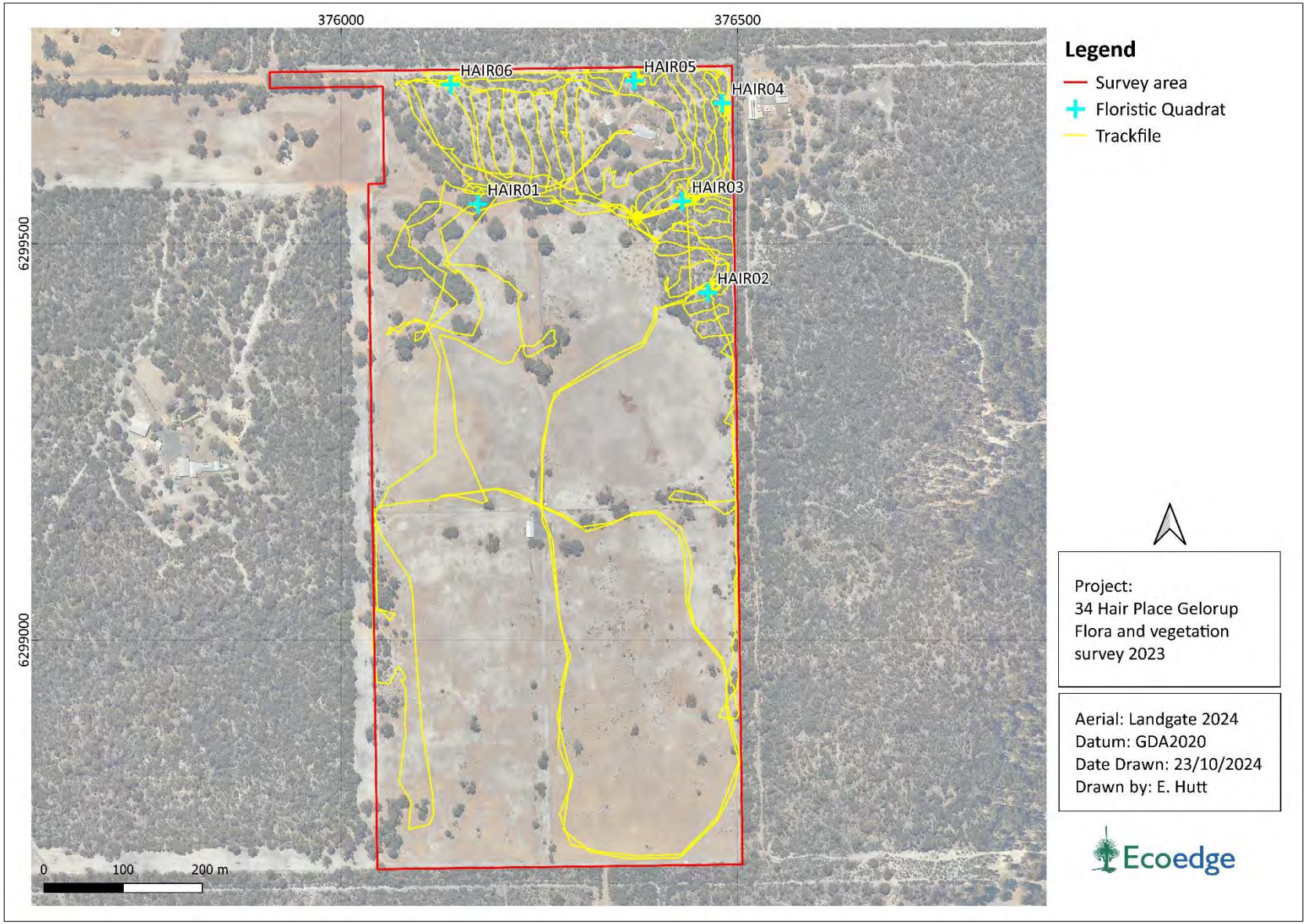
Example of application of pre and post-survey likelihood of occurrence

Taxon	Cons Status	Flowering	Description	Pre survey likelihood	Post Survey Likelihood
Drakaea elastica	T (EN)	Sep -Oct	Tuberous, perennial, herb, 0.12-0.3 m high. Fl. red, green, yellow. White or grey sand. Low-lying situations adjoining winter-wet swamps.	**Likely**	**Unlikely (U3)**

Appendix 2. Vegetation condition scale (EPA 2016).

Vegetation Condition	South West and Interzone Botanical Provinces
Pristine	Pristine or nearly so, no obvious signs of disturbance or damage caused by human activities since European settlement.
Excellent	Vegetation structure intact, disturbance affecting individual species and weeds are non-aggressive species. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional vehicle tracks.
Very Good	Vegetation structure altered, obvious signs of disturbance. Disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.
Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees and shrubs.

Appendix 3. Location of sample sites and track logs within the survey area.



Appendix 4. Categories of Threatened ecological communities under the EPBC Act.

Category	Definition
Critically endangered (CR)	If, at that time, an ecological community is facing an extremely high risk of extinction in the wild in the immediate future (indicative timeframe being the next 10 years).
Endangered (EN)	If, at that time, an ecological community is not critically endangered but is facing a very high risk of extinction in the wild in the near future (indicative timeframe being the next 20 years).
Vulnerable (VU)	If, at that time, an ecological, community is not critically endangered or endangered but is facing a high risk of extinction in the wild in the medium–term future (indicative timeframe being the next 50 years).

Appendix 5. Categories of threatened and priority ecological communities under the BC Act.

Conservation code	Category
(T) Threatened ecological community pursuant to Sect 27 of the *Biodiversity Conservation Act 2016.*	
T	(T) CR – Critically endangered An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated.
	(T) EN - Endangered An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.
	(T) VU - Vulnerable An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.
(P) Priority species – possible threatened communities.	
P1	Poorly known communities Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤5 occurrences or a total area of ≤ 100ha). Occurrences are believed to be under threat either due to limited extent, or being on lands under immediate threat (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) or for which current threats exist. May include communities with occurrences on protected lands. Communities may be included if they are comparatively well-known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under immediate threat from known threatening processes across their range.

Conservation code	Category
P2	Poorly known communities Communities that are known from few occurrences with a restricted distribution (generally ≤10 occurrences or a total area of ≤200ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) of destruction or degradation. Communities may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements, and/or are not well defined, and appear to be under threat from known threatening processes.
P3	Poorly known communities a) Communities that are known from several to many occurrences, a significant number or area of which are not under threat of habitat destruction or degradation or: b) communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat (within approximately 10 years), or; c) communities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing by domestic and/or feral stock, inappropriate fire regimes, clearing, hydrological change etc. Communities may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and/or are not well defined, and known threatening processes exist that could affect them.
P4	Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list. These communities require regular monitoring. 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. 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. c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.
P5	Conservation dependent ecological communities Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

Appendix 6. Definitions of conservation codes for Threatened and Priority flora.

Conservation code	Category
(T) Threatened species pursuant to Sect 19 of the BC Act 2016.	
T	(T) CR – Critically endangered Threatened species considered to be "*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*".
	(T) EN - Endangered Threatened species considered to be "*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*".
	(T) VU - Vulnerable Threatened species considered to be "*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*".
(P) Priority species – possible Threatened species.	
P1	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	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.

Conservation code	Category
P3	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	(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. (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. (c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Appendix 7. Categories of Threatened species under the EPBC Act.

Category	Definition
Extinct (Ex)	A native species is eligible to be included in the ***extinct*** category at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
Extinct in the Wild (ExW)	A native species is eligible to be included in the extinct in the wild category at a particular time if, at that time (a) it is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or (b) it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
Critically Endangered (CE)	A native species is eligible to be included in the critically endangered category at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
Endangered (EN)	A native species is eligible to be included in the endangered category at a particular time if, at that time (a) it is not critically endangered; and (b) it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
Vulnerable (VU)	A native species is eligible to be included in the vulnerable category at a particular time if, at that time (a) it is not critically endangered or endangered; and (b) it is facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria.
Conservation Dependent (CD)	A native species is eligible to be included in the conservation dependent category at a particular time if, at that time, the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

Appendix 8. Online data downloads.

AREA REPORT

ATLAS OF LIVING AUSTRALIA
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Area: 752.46 sq km	Species: 4675	Occurrences: 66038
Endemic species: 30	All threatened species: 303	Migratory species: 0
All invasive species: 31	Iconic species: 29	JournalMap Articles: 3
Animals: 2376	Plants: 1968	Birds: 320

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T130_10 km study area.zip

Area: 752.46 sq km

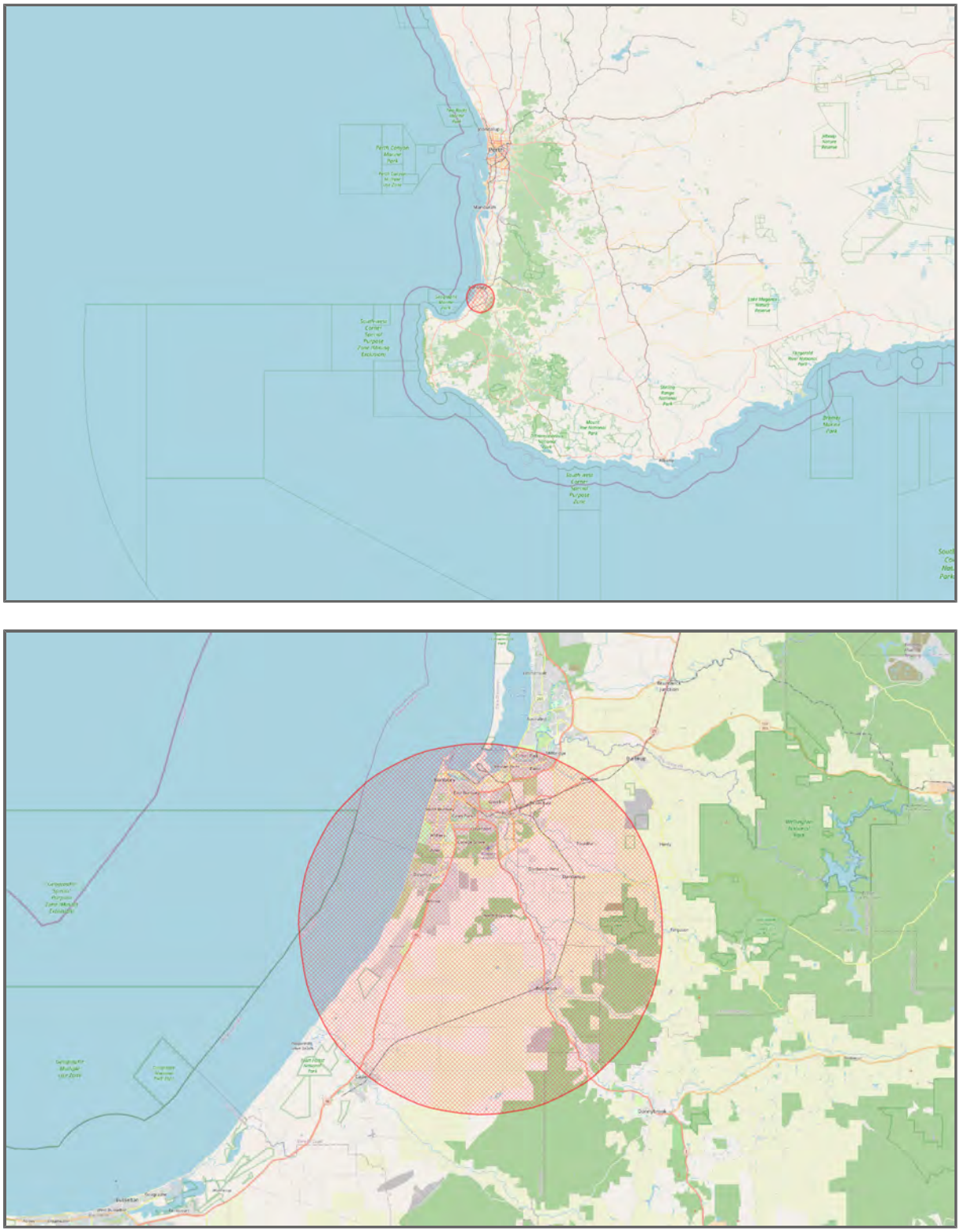

Figure 1 : Map of T130_10 km study area.zip

National Dynamic Land Cover

The Dynamic Land Cover Dataset is the first nationally consistent and thematically comprehensive land cover reference for Australia. It provides a base-line for reporting on change and trends in vegetation cover and extent. Information about land cover dynamics is essential to understanding and addressing a range of national challenges such as drought, salinity, water availability and ecosystem health. The data is a synopsis of land cover information for every 250m by 250m area of the country from April 2000 to April 2008. The classification scheme used to describe land cover categories in the Dataset conforms to the 2007 International Standards Organisation (ISO) land cover standard (19144-2). The Dataset shows Australian land covers clustered into 34 ISO classes. These reflect the structural character of vegetation, ranging from cultivated and managed land covers (crops and pastures) to natural land covers such as closed forest and open grasslands. [Ref1]

Australia's Dynamic Land Cover: http://www.ga.gov.au/earth-observation/landcover.html

National Dynamic Land Cover layer: Classification: Vegetation; Type: Contextual (polygonal); Metadata contact organisation: Geoscience Australia (GA). https://spatial.ala.org.au/ws/layers/view/more/dlcmv1

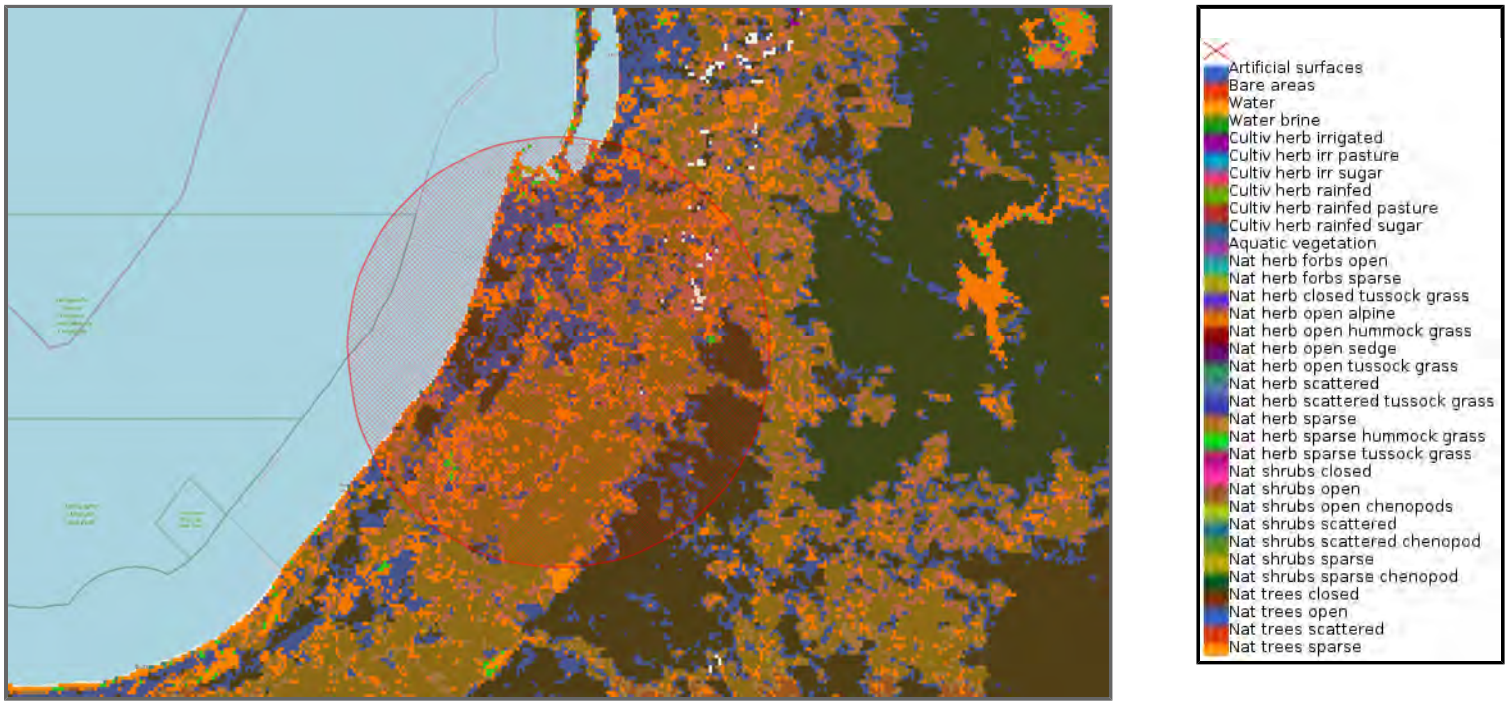

Figure 2 : Map of National Dynamic Land Cover

Table 1: National Dynamic Land Cover

Class/Region	Area (sq km)	% of total area
Primarily Non-Vegetated Bare Areas	1.37	0.19
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Trees Open	128.62	17.82
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Trees Closed	124.92	17.30
Primarily Non-Vegetated Waterbodies Water	5.13	0.71
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Trees Sparse	95.80	13.27
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Trees Scattered	0.62	0.09
Primarily Non-Vegetated Waterbodies Water Brine	0.07	0.01
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Herbaceous Graminoids Open Tussock Grasses	1.09	0.15
Primarily Vegetated Cultivated & Managed Lands Herbaceous Graminoids Irrigated Pasture	0.07	0.01
Primarily Vegetated Cultivated & Managed Lands Herbaceous Graminoids Rainfed	100.79	13.96
Primarily Vegetated Cultivated & Managed Lands Herbaceous Graminoids Rainfed Pasture	257.57	35.68
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Herbaceous Graminoids Sparse Hummock Grasses	2.46	0.34
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Shrubs Open	0.62	0.09
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Shrubs Scattered	0.41	0.06
Primarily Vegetated Natural & Semi-Natural Terrestrial Vegetation Woody Shrubs Sparse	2.39	0.33

Species

Species: **4675**

Spatially valid records are considered those that do not have any type of flag questioning their location, for example a terrestrial species being recorded in the ocean. [Ref6]

Number of species (spatially valid only): **4675**

Table 2: Species

Family	*Scientific Name*	Common Name	No. Occurrences
Rhipiduridae	Rhipidura (Sauloprocta) leucophrys	Willie Wagtail	1368
Laridae	Chroicocephalus novaehollandiae	Silver Gull	1317
Corvidae	Corvus coronoides	Australian Raven	1274
Psittacidae	Barnardius zonarius	Australian Ringneck	1185
Threskiornithidae	Threskiornis moluccus	Australian White Ibis	1144
Meliphagidae	Anthochaera (Anthochaera) carunculata	Red Wattlebird	1078
Artamidae	Gymnorhina tibicen	Australian Magpie	1074
Hirundinidae	Hirundo (Hirundo) neoxena	Welcome Swallow	1069
Phalacrocoracidae	Microcarbo melanoleucos	Little Pied Cormorant	1056
Zosteropidae	Zosterops lateralis	Silvereye	920
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) sulcirostris	Little Black Cormorant	895
Anatidae	Anas (Anas) superciliosa	Pacific Black Duck	873
Cacatuidae	Eolophus roseicapilla	Galah	848
Meliphagidae	Lichmera (Lichmera) indistincta	Brown Honeyeater	807
Anatidae	Cygnus atratus	Black Swan	793
Pelecanidae	Pelecanus conspicillatus	Australian Pelican	773
Ardeidae	Egretta novaehollandiae	White-faced Heron	761
Rhipiduridae	Rhipidura (Rhipidura) albiscapa	Grey Fantail	667
Meliphagidae	Phylidonyris (Meliornis) novaehollandiae	New Holland Honeyeater	654
Anatidae	Chenonetta jubata	Australian Wood Duck	625
Anhingidae	Anhinga novaehollandiae	Australasian Darter	586
Columbidae	Phaps (Phaps) chalcoptera	Common Bronzewing	578
Rallidae	Fulica atra	Eurasian Coot	576
Ardeidae	Ardea alba	Great Egret	568
Hirundinidae	Petrochelidon (Hylochelidon) nigricans	Tree Martin	564
Monarchidae	Grallina cyanoleuca	Magpie-lark	554
Haematopodidae	Haematopus longirostris	Australian Pied Oystercatcher	553
Meliphagidae	Gavicalis virescens	Singing Honeyeater	519
Campephagidae	Coracina (Coracina) novaehollandiae	Black-faced Cuckoo-shrike	509
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) varius	Pied Cormorant	508
Ardeidae	Egretta garzetta	Little Egret	500
Acanthizidae	Gerygone fusca	Western Gerygone	493
Columbidae	Spilopelia senegalensis	Laughing Turtle-dove	488
Anatidae	Tadorna (Casarca) tadornoides	Australian Shelduck	464
Artamidae	Cracticus torquatus	Grey Butcherbird	446
Pachycephalidae	Pachycephala (Alisterornis) rufiventris	Rufous Whistler	437
Psittacidae	Purpureicephalus spurius	Red-capped Parrot	433
Rallidae	Gallinula (Gallinula) tenebrosa	Dusky Moorhen	419
Cacatuidae	Cacatua (Licmetis) sanguinea	Little Corella	411
Anatidae	Anas gracilis	Grey Teal	393
Alcedinidae	Dacelo (Dacelo) novaeguineae	Laughing Kookaburra	392
Columbidae	Columba (Columba) livia	Rock Dove	391
Maluridae	Malurus (Malurus) splendens	Splendid Fairy-wren	388

Threskiornithidae	Threskiornis spinicollis	Straw-necked Ibis	385
Rallidae	Porphyrio (Porphyrio) porphyrio melanotus	Australasian Purple Swamphen	383
Pardalotidae	Pardalotus (Pardalotinus) striatus	Striated Pardalote	369
Anatidae	Biziura lobata	Musk Duck	349
Columbidae	Ocyphaps lophotes	Crested Pigeon	334
Accipitridae	Haliastur sphenurus	Whistling Kite	314
Podicipedidae	Tachybaptus novaehollandiae	Australasian Grebe	294
Alcedinidae	Todiramphus (Todiramphus) sanctus	Sacred Kingfisher	285
Threskiornithidae	Platalea (Platibis) flavipes	Yellow-billed Spoonbill	265
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) carbo	Great Cormorant	244
Ardeidae	Ardea alba modesta	Great Egret	229
Anatidae	Aythya (Nyroca) australis	Hardhead	229
Acrocephalidae	Acrocephalus (Acrocephalus) australis	Australian Reed Warbler	225
Cacatuidae	Zanda baudinii	Long-billed Black-cockatoo	213
Myobatrachidae	Crinia glauerti	Glauert's Froglet	207
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	205
Rallidae	Porphyrio (Porphyrio) porphyrio	Purple Swamphen	205
Locustellidae	Poodytes gramineus	Little Grassbird	203
Falconidae	Falco (Tinnunculus) cenchroides	Nankeen Kestrel	202
Rhodomelaceae	Rhodomelaceae		193
Acanthizidae	Acanthiza (Acanthiza) apicalis	Red-rumped Tit	188
Columbidae	Streptopelia		184
Megachilidae	Megachile		182
Acanthizidae	Acanthiza (Geobasileus) chrysorrhoa	Yellow-rumped Thornbill	181
Myobatrachidae	Geocrinia leai	Lea's Frog	162
Recurvirostridae	Himantopus himantopus leucocephalus	Pied Stilt	162
Laridae	Sternula nereis	Fairy Tern	162
Artamidae	Artamus (Angroyan) cinereus	Black-faced Woodswallow	161
Meliphagidae	Phylidonyris (Meliornis) niger	White-cheeked Honeyeater	161
Acanthizidae	Smicrornis brevirostris	Weebill	154
Acanthizidae	Sericornis (Sericornis) frontalis maculatus	South-western Spotted Scrubwren	146
Accipitridae	Circus approximans	Swamp Harrier	137
Motacillidae	Anthus (Anthus) novaeseelandiae novaeseelandiae		135
Podicipedidae	Poliocephalus poliocephalus	Hoary-headed Grebe	135
Chelidae	Chelodina (Macrochelodina) oblonga	Northern Snake-necked Turtle	134
Charadriidae	Charadrius (Charadrius) ruficapillus	Red-capped Plover	131
Accipitridae	Elanus axillaris	Black-shouldered Kite	129
Petroicidae	Petroica (Petroica) boodang	Scarlet Robin	129
Psittacidae	Polytelis anthopeplus	Regent Parrot	128
Lycaenidae	Theclinesthes hesperia hesperia		128
Lycaenidae	Jalmenus inous	Varied Hairstreak	121
Charadriidae	Vanellus (Lobivanellus) tricolor	Banded Lapwing	119
Pelodryadidae	Litoria moorei	Western Green And Golden Bell Frog	116
Lycaenidae	Candalides heathi heathi	Rayed Blue	114
Anatidae	Spatula rhynchotis	Australasian Shoveler	112
Anatidae	Oxyura australis	Blue-billed Duck	104
Nymphalidae	Geitoneura minyas	Western Xenica	96
Dilleniaceae	Hibbertia hypericoides	Yellow Buttercups	96
Corallinaceae	Amphiroa anceps		94
Pelodryadidae	Litoria adelaidensis	Slender Tree Frog	94
Corallinaceae	Corallinaceae		91
Halictidae	Lipotriches (Austronomia)		91
Accipitridae	Pandion haliaetus cristatus	Eastern Osprey	91
Psittacidae	Platycercus (Violania) icterotis	Western Rosella	91
Motacillidae	Anthus (Anthus) novaeseelandiae	Australian Pipit	90
Rallidae	Hypotaenidia philippensis	Buff-banded Rail	90

Recurvirostridae	Recurvirostra novaehollandiae	Red-necked Avocet	88
Meliphagidae	Acanthorhynchus superciliosus	Western Spinebill	87
Pachycephalidae	Pachycephala (Pachycephala) pectoralis fuliginosa	South Australian Golden Whistler	87
Hesperiidae	Trapezites argenteoornatus	Silver-spotted Skipper	87
Hesperiidae	Exometoeca nycteris	Western Flat	85
Rhodomelaceae	Laurencia		85
Hesperiidae	Croitana croites	Croites Skipper	84
Chelidae	Emydura		84
Charadriidae	Elseyornis melanops	Black-fronted Dotterel	83
Orchidaceae	Caladenia flava	Cowslip Orchid	82
Proteaceae	Banksia attenuata	Coast Banksia	80
Dothioraceae	Kabatiella		78
Caulerpaceae	Caulerpa		76
Limnodynastidae	Heleioporus eyrei	Moaning Frog	76
Dictyotaceae	Dictyotaceae		75
Falconidae	Falco (Falco) longipennis	Australian Hobby	75
Asteraceae	Hypochaeris glabra	Smooth Cat's Ear	74
Rutaceae	Philotheca spicata	Pepper And Salt	74
Fabaceae	Bossiaea eriocarpa	Common Brown Pea	70
Ardeidae	Bubulcus ibis	Cattle Egret	70
Proteaceae	Xylomelum occidentale	Woody Pear	70
Proteaceae	Petrophile linearis	Pixie Mops	69
Orchidaceae	Pterostylis vittata	Banded Greenhood	69
Accipitridae	Haliaeetus (Pontoaetus) leucogaster	White-bellied Sea-eagle	68
Limnodynastidae	Limnodynastes dorsalis	Western Banjo Frog	68
Psittacidae	Neophema (Neonanodes) elegans	Elegant Parrot	68
Apidae	Amegilla (Notomegilla) chlorocyanea	Blue Banded Bee	66
Hesperiidae	Hesperilla chrysotricha chrysotricha	Chrysotricha Skipper	65
Ardeidae	Nycticorax caledonicus	Nankeen Night-heron	65
Iridaceae	Patersonia occidentalis	Long Purple-flag	65
Goodeniaceae	Dampiera linearis	Wedge-leaved Dampiera	64
Megachilidae	Megachile (Eutricharaea) chrysopyga	Bee	64
Poaceae	Briza maxima	Large Quaking-grass	62
Myobatrachidae	Crinia insignifera	Sign-bearing Froglet	62
Myrtaceae	Hypocalymma robustum	Swan River Myrtle	61
Scolopacidae	SCOLOPACIDAE	Red Phalarope	61
Araliaceae	Trachymene pilosa	Dwarf Trachymene	61
Apiaceae	Xanthosia huegelii	Hairy Xanthosia	61
Cuculidae	Chalcites		60
Fabaceae	Hardenbergia comptoniana	Western Australian Coral-pea	60
Accipitridae	Accipiter (Leucospiza) fasciatus	Brown Goshawk	59
Tetragnathidae	TETRAGNATHIDAE		59
Hesperiidae	Trapezites sciron sciron	Sciron Skipper	59
Colletidae	Hylaeus (Euprosopoides) ruficeps	Plasterer Bee	58
Cyperaceae	Lepidosperma squamatum		58
Lycaenidae	Neolucia agricola occidens		58
Cacatuidae	Zanda latirostris	Short-billed Black-cockatoo	58
Apidae	Exoneura (Exoneura) pictifrons		57
Orchidaceae	Pyrorchis nigricans	Black Fire-orchid	56
Artamidae	Artamus (Angroyan) cyanopterus	Dusky Woodswallow	55
Zamiaceae	Macrozamia riedlei	Zamia Palm	55
Sphaeromatidae	Paracerceis sculpta	Sponge Isopod	55
Colchicaceae	Burchardia congesta	Milkmaids	54
Canidae	Vulpes vulpes	Fox	54
Fabaceae	Acacia pulchella	Prickly Moses	53
Pachycephalidae	Colluricincla (Colluricincla) harmonica	Grey Shrike-thrush	53

Restionaceae	Desmocladus fasciculatus		53
Scincidae	Hemiergis quadrilineata	Two-toed Earless Skink	53
Fabaceae	Daviesia physodes		52
Lycaenidae	Theclinesthes miskini	Wattle Blue	52
Hesperiidae	Anisynta sphenosema	Wedge Grass-skipper	51
Apidae	Apis (Apis) mellifera	Honey Bee	51
Rutaceae	Boronia dichotoma		51
Haemodoraceae	Conostylis aculeata	Prickly Conostylis	51
Podargidae	Podargus strigoides	Tawny Frogmouth	51
Tiphiidae	TIPHIIDAE		51
Proteaceae	Adenanthos meisneri		49
Ardeidae	Ardea pacifica	White-necked Heron	49
Proteaceae	Banksia grandis	Giant Banksia	49
Orchidaceae	Caladenia latifolia	Pink Fairies	49
Recurvirostridae	Himantopus himantopus	Black-winged Stilt	49
Asparagaceae	Lomandra hermaphrodita		49
Proteaceae	Stirlingia latifolia	Blueboy	49
Dasypogonaceae	Dasypogon bromeliifolius	Pineapple Bush	48
Rhodomelaceae	Echinothamnion hystrix		48
Tiphiidae	Macrothynnus		48
Hesperiidae	Taractrocera papyria agraulia	Western Grassdart	48
Myrtaceae	Eucalyptus marginata subsp. marginata	Jarrah	47
Dilleniaceae	Hibbertia diamesogenos		47
Restionaceae	Hypolaena exsulca		47
Myrtaceae	Melaleuca thymoides		47
Hesperiidae	Hesperilla donnysa albina		46
	AVES	Birds	45
Myrtaceae	Agonis flexuosa	Willow Myrtle	45
Accipitridae	Aquila (Uroaetus) audax	Wedge-tailed Eagle	45
Orchidaceae	Pterostylis	Greenhoods	44
Cuculidae	Cacomantis (Vidgenia) flabelliformis	Fan-tailed Cuckoo	43
Petroicidae	Eopsaltria (Eopsaltria) griseogularis	Western Yellow Robin	43
Fabaceae	Kennedia prostrata	Scarlet Runner	43
Leporidae	Oryctolagus cuniculus	Rabbit	43
Cicadidae	CICADIDAE		42
Orchidaceae	Elythranthera brunonis	Purple Enamel Orchid	42
Dilleniaceae	Hibbertia vaginata		42
Loranthaceae	Nuytsia floribunda	Western Australian Christmas Tree	42
Tiphiidae	Thynnoides berthoudi		42
Asparagaceae	Chamaescilla corymbosa var. corymbosa	Blue Stars	41
Meropidae	Merops (Merops) ornatus	Rainbow Bee-eater	41
Pachycephalidae	Pachycephala (Pachycephala) pectoralis	Golden Whistler	41
Acanthaceae	Avicennia marina	White Mangrove	40
Fabaceae	Gompholobium tomentosum	Hairy Yellow Pea	40
Dasyaceae	Heterosiphonia		40
Asparagaceae	Lomandra nigricans		40
Cyperaceae	Tetraria octandra		40
Xanthorrhoeaceae	Xanthorrhoea preissii	Grasstree	40
Fabaceae	Acacia stenoptera	Narrow-winged Wattle	39
Orchidaceae	Caladenia speciosa	Sandplain White Spider Orchid	39
Cacatuidae	Calyptorhynchus		39
Tiphiidae	Campylothynnus assimilis		39
Haemodoraceae	Phlebocarya ciliata		39
Phyllanthaceae	Phyllanthus calycinus	Snowdrop Spurge	39
Droseraceae	Drosera drummondii		38
Fabaceae	Jacksonia horrida		38

Fabaceae	Kennedia coccinea	Coral Vine	38
Orchidaceae	Leporella fimbriata	Fringed Hare-orchid	38
Asparagaceae	Lomandra sericea	Silky Mat Rush	38
Podicipedidae	Podiceps cristatus	Great Crested Grebe	38
Proteaceae	Banksia dallanneyi		37
Orchidaceae	Caladenia flava subsp. flava	Cowslip Orchid	37
Gracilariaceae	Gracilaria	Gracilaria	37
Dilleniaceae	Hibbertia racemosa	Stalked Guinea Flower	37
Goodeniaceae	Lechenaultia biloba	Blue Leschenaultia	37
Anarthriaceae	Lyginia barbata		37
Strigidae	Ninox (Ninox) boobook	Southern Boobook	37
Asparagaceae	Sowerbaea laxiflora	Vanilla Lily	37
Spyridiaceae	Spyridia dasyoides		37
Fabaceae	Acacia extensa	Wiry Wattle	36
Acanthizidae	Acanthiza (Geobasileus) inornata	Western Thornbill	36
Poaceae	Austrostipa compressa		36
Ceramiaceae	Ceramiaceae		36
Myrtaceae	Corymbia calophylla	Marri	36
Hesperiidae	Mesodina cyanophracta	Blue Iris-skipper	36
Actinopodidae	Missulena granulosa		36
Poaceae	Briza minor	Lesser Quaking-grass	35
Ardeidae	Egretta sacra	Eastern Reef Egret	35
Dilleniaceae	Hibbertia stellaris	Guinea Flower	35
Fabaceae	Hovea trisperma	Common Hovea	35
Proteaceae	Persoonia longifolia	Snottygobble	35
Orchidaceae	Pterostylis recurva	Recurved Shell Orchid	35
Maluridae	Stipiturus malachurus	Southern Emu-wren	35
Laridae	Thalasseus bergii	Crested Tern	35
Rutaceae	Boronia spathulata	Boronia	34
Lamiaceae	Hemiandra pungens	Snakebush	34
Myrtaceae	Hypocalymma angustifolium	White Myrtle	34
Psittacidae	Parvipsitta porphyrocephala	Purple-crowned Lorikeet	34
Iridaceae	Patersonia umbrosa var. xanthina	Yellow Flags	34
Elaeocarpaceae	Platytheca galioides		34
Stylidiaceae	Stylidium schoenoides	Cow Kicks	34
Apidae	Thyreus waroonensis	Cuckoo Bee	34
Apidae	Amegilla		33
Cuculidae	Heteroscenes pallidus	Pallid Cuckoo	33
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	33
Asparagaceae	Lomandra caespitosa	Tufted Mat-rush	33
Sulidae	Morus serrator	Australasian Gannet	33
Acanthizidae	Sericornis (Sericornis) frontalis	White-browed Scrubwren	33
	Agaricales		32
Poaceae	Aira caryophyllea	Silvery Hairgrass	32
Anamidae	Aname		32
Orchidaceae	Caladenia paludosa	Swamp Spider Orchid	32
Ericaceae	Conostephium pendulum	Pearl Flower	32
Dictyotaceae	Dictyota dichotoma	Brown Algae	32
Myrtaceae	Eucalyptus gomphocephala	Tuart	32
Laridae	Larus pacificus	Pacific Gull	32
Megachilidae	Megachile (Hackeriapis) tosticauda	Bee	32
Orchidaceae	Pterostylis aspera	Brown-veined Shell Orchid	32
Dilleniaceae	Hibbertia cuneiformis	Cutleaf Hibbertia	31
Pardalotidae	Pardalotus (Pardalotus) punctatus	Spotted Pardalote	31
Apiaceae	Platysace tenuissima		31
Goodeniaceae	Scaevola calliptera	Royal Robe	31

Orchidaceae	Caladenia	Fairy Orchids	30
Droseraceae	Drosera pallida	Pale Rainbow	30
Buprestidae	Euryspilus chalcodes		30
Fabaceae	Gompholobium polymorphum		30
Fabaceae	Jacksonia furcellata	Grey Stinkwood	30
Ericaceae	Leucopogon conostephioides		30
Dictyotaceae	Lobophora variegata	Brown Algae	30
Stylidiaceae	Stylidium brunonianum	Pink Fountain Triggerplant	30
Stylidiaceae	Stylidium piliferum	Common Butterfly Triggerplant	30
Orchidaceae	Thelymitra crinita	Blue Lady Orchid	30
Cymodoceaceae	Amphibolis antarctica	Sea Nymph	29
Haemodoraceae	Anigozanthos manglesii	Red And Green Kangaroo Paw	29
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	29
Proteaceae	Isopogon sphaerocephalus	Drumstick Isopogon	29
Stylidiaceae	Levenhookia pusilla	Tiny Stylewort	29
Anarthriaceae	Anarthria prolifera		28
Ericaceae	Astroloma pallidum	Kick Bush	28
Proteaceae	Banksia ilicifolia	Holly Leaved Banksia	28
Xanthorrhoeaceae	Xanthorrhoea brunonis		28
Crabronidae	CRABRONIDAE		27
Meliphagidae	Epthianura (Epthianura) albifrons	White-fronted Chat	27
Fabaceae	Eutaxia virgata		27
	Florideophyceae		27
Wrangeliaceae	Griffithsia monilis		27
	LEPIDOPTERA	Butterflies	27
Asteraceae	Lagenophora huegelii	Coarse Bottle-daisy	27
Orchidaceae	Pterostylis rogersii	Curl Tongue Shell Orchid	27
Poaceae	Rytidosperma occidentale	Western Wallaby Grass	27
Fabaceae	Acacia cochlearis	Rigid Wattle	26
Fabaceae	Acacia saligna	Golden Wreath Wattle	26
Fabaceae	Acacia willdenowiana	Grass Wattle	26
Rutaceae	Diplolaena dampieri	Southern Diplolaena	26
Orchidaceae	Eriochilus dilatatus	White Bunny Orchid	26
Dilleniaceae	Hibbertia cunninghamii		26
	INSECTA	Insects	26
Ericaceae	Leucopogon propinquus		26
Myrtaceae	Melaleuca	Tea-tree	26
Rallidae	Porphyrio (Porphyrio) porphyrio bellus	Western Australian Purple Swamphen	26
Meliphagidae	Anthochaera (Anellobia) lunulata	Western Wattlebird	25
Lauraceae	Cassytha racemosa	Dodder Laurel	25
Myobatrachidae	Crinia georgiana	Tschudi's Froglet	25
Scincidae	Cryptoblepharus buchananii	Buchanan’s Snake-eyed Skink	25
Asparagaceae	Dichopogon capillipes		25
Orchidaceae	Eriochilus dilatatus subsp. dilatatus	White Bunny Orchid	25
Proteaceae	Hakea cyclocarpa	Ramshorn	25
Campephagidae	Lalage		25
Crabronidae	Sericophorus relucens	Wasp	25
Fabaceae	Acacia applanata	Grass Wattle	24
Buprestidae	BUPRESTIDAE		24
Apiaceae	Daucus glochidiatus	Native Carrot	24
Orchidaceae	Diuris porphyrochila	Yalgorup Donkey Orchid	24
Fabaceae	Gastrolobium capitatum	Bacon And Eggs	24
Fabaceae	Gompholobium knightianum	Knight's Wedge-pea	24
Cyperaceae	Isolepis marginata	Little Club-rush	24
Asparagaceae	Lomandra suaveolens		24
Megachilidae	Megachile fultoni		24

Myrtaceae	Melaleuca rhaphiophylla	Swamp Paperbark	24
Meliphagidae	Melithreptus (Melithreptus) chloropsis	Gilbert's Honeyeater	24
Orchidaceae	Microtis media	Common Mignonette Orchid	24
Myrtaceae	Paragonis grandiflora		24
Rhodymeniaceae	Rhodymenia sonderi		24
Solieriaceae	Solieria robusta		24
Artamidae	Strepera (Neostrepera) versicolor	Grey Currawong	24
Xanthorrhoeaceae	Xanthorrhoea gracilis	Graceful Grass Tree	24
Rallidae	Zapornia tabuensis	Spotless Crake	24
Hemerocallidaceae	Agrostocrinum scabrum	Blue Grass Lily	23
Apidae	Amegilla (Asaropoda) preissi		23
Araneidae	Austracantha minax	Jewel Spider	23
Proteaceae	Banksia littoralis	Swamp Banksia	23
Burramyidae	Cercartetus concinnus	Western Pygmy-possum	23
Cuculidae	Chalcites lucidus	Shining Bronze-cuckoo	23
Asparagaceae	Chamaescilla corymbosa	Blue Stars	23
Myrtaceae	Corymbia haematoxylon	Mountain Marri	23
Droseraceae	Drosera erythrorhiza	Red Ink Sundew	23
Cleridae	Eleale		23
Tiphiidae	Elidothynnus		23
Proteaceae	Hakea amplexicaulis	Prickly Hakea	23
Halymeniaceae	Halymeniaceae		23
Nymphalidae	Heteronympha merope duboulayi		23
Dilleniaceae	Hibbertia commutata		23
Laridae	Hydroprogne caspia	Caspian Tern	23
Sargassaceae	Sargassum		23
Asteraceae	Sonchus oleraceus	Common Sow-thistle	23
Rhamnaceae	Spyridium globulosum	Basket Bush	23
Celastraceae	Tripterococcus brunonis	Winged Stackhousia	23
Asteraceae	Ursinia anthemoides	Ursinia	23
	ANURA	Bakuŋbakuŋ	22
	Agaricomycetes		22
Asteraceae	Asteridea pulverulenta	Common Bristle Daisy	22
Ericaceae	Astroloma ciliatum	Candle Cranberry	22
Rhodomelaceae	Brongniartella australis		22
Orchidaceae	Caladenia longicauda	White Spider Orchid	22
Myrtaceae	Calytrix flavescens	Summer Starflower	22
Centrolepidaceae	Centrolepis drummondiana	Drummond's Centrolepis	22
Gekkonidae	Christinus marmoratus	Marbled Gecko	22
Orchidaceae	Cyanicula sericea	Silky Blue Orchid	22
Proteaceae	Hakea lissocarpha	Honey Bush	22
Proteaceae	Hakea varia	Variable-leaved Hakea	22
Asparagaceae	Lomandra preissii	Preiss' Mat Rush	22
Accipitridae	Lophoictinia isura	Square-tailed Kite	22
Poaceae	Microlaena stipoides	Weeping Grass	22
Strigidae	Ninox (Ninox) novaeseelandiae	Southern Boobook	22
Apiaceae	Platysace compressa	Tapeworm Plant	22
Elaeocarpaceae	Tetratheca hirsuta	Black-eyed Susan	22
Tytonidae	Tyto	Barn Owl	22
	ARANEAE	Spiders	21
Asparagaceae	Acanthocarpus preissii		21
Haemodoraceae	Anigozanthos manglesii subsp. manglesii	Mangles' Kangaroo Paw	21
Hemerocallidaceae	Caesia micrantha	Pale Grass Lily	21
Cyperaceae	Cyathochaeta avenacea		21
Orchidaceae	Disa bracteata	South African Orchid	21
Hemerocallidaceae	Johnsonia acaulis		21

Asteraceae	Olearia axillaris	Coast Daisy-bush	21
Asparagaceae	Thysanotus manglesianus	Fringed Lily	21
Asparagaceae	Thysanotus multiflorus	Many-flowered Fringe	21
Udoteaceae	Udoteaceae		21
Proteaceae	Adenanthos barbiger	Hairy Glandflower	20
Poaceae	Bromus diandrus	Great Brome	20
	CHARADRIIFORMES		20
Centrolepidaceae	Centrolepis aristata	Pointed Centrolepis	20
Lamiaceae	Genus		20
Theridiidae	Latrodectus hasseltii	Redback Spider	20
Mutillidae	MUTILLIDAE		20
Scincidae	Menetia greyii	Grey's Menetia	20
Rubiaceae	Opercularia apiciflora		20
Orchidaceae	Pterostylis angusta	Narrow-hooded Shell Orchid	20
Stylidiaceae	Stylidium junceum	Reed Triggerplant	20
Poaceae	Tetrarrhena laevis	Forest Ricegrass	20
Apiaceae	Xanthosia ciliata		20
Araneidae	ARANEIDAE		19
Anatidae	Anas (Anas) platyrhynchos	Common Mallard	19
Crabronidae	Bembix littoralis	Wasp	19
Buprestidae	Castiarina cupreoflava		19
Droseraceae	Drosera stolonifera	Leafy Sundew	19
Falconidae	Falco (Ieracidea) berigora	Brown Falcon	19
Hemerocallidaceae	Johnsonia lupulina	Hooded Lily	19
Ericaceae	Leucopogon parviflorus	Coast Beard-heath	19
Stylidiaceae	Levenhookia stipitata	Common Stylewort	19
Tiphiidae	Megalothynnus friederichi		19
Araneidae	Nephila		19
	Plantae		19
Orchidaceae	Praecoxanthus aphyllus	Leafless Orchid	19
Accipitridae	Accipiter (Paraspizias) cirrocephalus	Collared Sparrowhawk	18
Poaceae	Austrostipa flavescens	Coast Spear-grass	18
Orchidaceae	Diuris	Donkey Orchids	18
Myrtaceae	Eucalyptus marginata	Jarrah	18
Apidae	Exoneura nigrescens	Reed Bee	18
Gasteruptiidae	Gasteruption		18
Hydraenidae	Gymnochthebius notalis		18
Apiaceae	Homalosciadium homalocarpum		18
Colletidae	Leioproctus (Leioproctus) clarki	Plasterer Bee	18
Ericaceae	Leucopogon capitellatus		18
Campanulaceae	Lobelia tenuior	Slender Lobelia	18
Asparagaceae	Lomandra purpurea	Purple Mat Rush	18
Macropodidae	Macropus fuliginosus	Western Grey Kangaroo	18
Cyperaceae	Mesomelaena tetragona	Semaphore Sedge	18
Loganiaceae	Orianthera serpyllifolia subsp. angustifolia		18
Accipitridae	Pandion haliaetus	Osprey	18
Caryophyllaceae	Petrorhagia dubia	Velvet Pink	18
Salticidae	SALTICIDAE	Jumping Spiders	18
Stylidiaceae	Stylidium amoenum	Lovely Triggerplant	18
Stylidiaceae	Stylidium	Trigger-plants	18
Asparagaceae	Thysanotus patersonii	Twining Fringe-lily	18
Polyporaceae	Trametes		18
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	18
Hemerocallidaceae	Agrostocrinum hirsutum	Grass Lily	17
Casuarinaceae	Allocasuarina humilis	Dwarf Sheoak	17
Centrolepidaceae	Aphelia cyperoides		17

Poaceae	Austrostipa semibarbata	Fibrous Spear-grass	17
Orchidaceae	Caladenia chapmanii	Chapman's Spider Orchid	17
Droseraceae	Drosera marchantii	Bridal Rainbow	17
Orchidaceae	Elythranthera emarginata	Pink Enamel Orchid	17
	Fungi		17
Nymphalidae	Geitoneura klugii	Klug's Xenica	17
Fabaceae	Gompholobium capitatum	Yellow Pea	17
Fabaceae	Gompholobium preissii		17
	HYMENOPTERA	Wasps	17
Fabaceae	Hovea trisperma var. grandiflora		17
Fabaceae	Hovea trisperma var. trisperma	Common Hovea	17
Violaceae	Hybanthus calycinus	Wild Violet	17
Colletidae	Hylaeus (Prosopisteron) quadratus	Plasterer Bee	17
Myrtaceae	Kunzea glabrescens	Spearwood	17
Cyperaceae	Lepidosperma longitudinale	Pithy Sword-sedge	17
Tiphiidae	Lestricothynnus constrictus		17
Ericaceae	Lysinema ciliatum	Curry Flower	17
Iridaceae	Moraea flaccida	One-leaf Cape Tulip	17
Orobanchaceae	Orobanche minor	Lesser Broomrape	17
Myrtaceae	Pericalymma ellipticum	Swamp Teatree	17
Loganiaceae	Phyllangium paradoxum	Wiry Mitrewort	17
Thymelaeaceae	Pimelea rosea subsp. rosea	Rose Banjine	17
Orchidaceae	Pterostylis pyramidalis	Tall Snail Orchid	17
Fabaceae	Pultenaea skinneri	Skinner's Pea	17
Celastraceae	Stackhousia monogyna	Creamy Candles	17
Stylidiaceae	Stylidium calcaratum	Spurred Trigger-plant	17
Orchidaceae	Thelymitra macrophylla	Scented Sun Orchid	17
Asparagaceae	Thysanotus sparteus	Leafless Fringed Lily	17
Scincidae	Tiliqua rugosa	Shingle-back	17
Ericaceae	Andersonia caerulea	Foxtails	16
Sphecidae	Chalybion		16
Chaetodontidae	Chelmonops curiosus	Western Talma	16
Restionaceae	Desmocladus flexuosus		16
Myrtaceae	Eucalyptus	Studley Park Gum	16
Laelapidae	Gaeolaelaps		16
Dilleniaceae	Hibbertia huegelii		16
Elapidae	Hydrophis platurus platurus	Yellow-bellied Seasnake	16
Megachilidae	Megachile (Rhodomegachile)		16
Megachilidae	Megachile aurifrons	Bee	16
Euphorbiaceae	Monotaxis occidentalis		16
Procellariidae	Pachyptila desolata	Antarctic Prion	16
Stylidiaceae	Stylidium repens	Matted Triggerplant	16
Ericaceae	Styphelia tenuiflora	Common Pinheath	16
Helicidae	Theba pisana	White Italian Snail	16
Asparagaceae	Thysanotus thyrsoideus		16
Anatidae	ANATIDAE	Ducks	15
Fabaceae	Acacia lateriticola		15
Fabaceae	Acacia mooreana		15
Fabaceae	Acacia pulchella var. glaberrima	Western Prickly Moses	15
Scincidae	Acritoscincus trilineatus	Western Three-lined Skink	15
Proteaceae	Adenanthos obovatus	Basket Flower	15
Poaceae	Amphipogon amphipogonoides		15
Pittosporaceae	Billardiera variifolia		15
Fabaceae	Bossiaea ornata	Broad-leaved Brown Pea	15
Rhodymeniaceae	Botryocladia		15
Tiphiidae	Doratithynnus bidentatus		15

Goodeniaceae	Goodenia eatoniana		15
Dilleniaceae	Hibbertia hypericoides subsp. hypericoides	Yellow Buttercups	15
Fabaceae	Hovea chorizemifolia	Holly-leaved Hovea	15
Dasypogonaceae	Kingia australis	Drumsticks	15
Lycosidae	LYCOSIDAE	Wolf Spider	15
Salticidae	Maratus tessellatus		15
Myrtaceae	Melaleuca pauciflora		15
Scincidae	Morethia lineoocellata	West Coast Morethia Skink	15
Orbiniidae	ORBINIIDAE		15
Iridaceae	Orthrosanthus laxus	Morning Iris	15
Pempheridae	Pempheris klunzingeri	Rough Bullseye	15
Anamidae	Proshermacha		15
Orchidaceae	Pterostylis nana	Dwarf Greenhood	15
Scarabaeidae	SCARABAEIDAE		15
Santalaceae	Santalum acuminatum	Sweet Quandong	15
Goodeniaceae	Scaevola crassifolia	Cushion Fanflower	15
Proteaceae	Synaphea petiolaris	Synaphea	15
Elaeocarpaceae	Tetratheca hirsuta subsp. viminea		15
Pentatomidae	Theseus modestus	Shield Bug	15
Scincidae	Tiliqua rugosa rugosa		15
Plesiopidae	Trachinops noarlungae	Yellowhead Hulafish	15
Campanulaceae	Wahlenbergia preissii		15
Fabaceae	Acacia nervosa	Rib Wattle	14
Fabaceae	Acacia varia var. varia		14
Fabaceae	Acacia	Wattle	14
Scolopacidae	Actitis hypoleucos	Common Sandpiper	14
Apocynaceae	Alyxia buxifolia	Sea Box	14
Poaceae	Amphipogon turbinatus		14
Colchicaceae	Burchardia multiflora	Lesser Burchardia	14
Myrtaceae	Calothamnus sanguineus	Silky-leaved Bloodflower	14
Formicidae	Camponotus		14
Polygalaceae	Comesperma virgatum	Milkwort	14
Phasianidae	Coturnix (Coturnix) pectoralis	Stubble Quail	14
Halymeniaceae	Cryptonemia		14
Dictyotaceae	Dictyota furcellata	Brown Algae	14
Orchidaceae	Diuris longifolia	Common Donkey Orchid	14
Droseraceae	Drosera collina		14
Droseraceae	Drosera gigantea	Giant Sundew	14
Formicidae	FORMICIDAE	Ants	14
Fabaceae	Gompholobium confertum		14
Proteaceae	Hakea stenocarpa		14
Araliaceae	Hydrocotyle bonariensis	Pennywort	14
Idiopidae	Idiosoma sigillatum	Swan Coastal Plain Shield-backed Trapdoor Spider	14
Formicidae	Iridomyrmex conifer	Coned Tyrant Ant	14
Myrtaceae	Kunzea micrantha subsp. micrantha		14
Myrtaceae	Kunzea recurva		14
Asparagaceae	Laxmannia sessiliflora subsp. australis		14
Colletidae	Leioproctus (Leioproctus) plumosus	Plasterer Bee	14
Cyperaceae	Lepidosperma angustatum		14
Teredinidae	Lyrodus pedicellatus		14
Terebratellidae	Magellania flavescens		14
Myrtaceae	Melaleuca cuticularis	Western Swamp-paperbark	14
Myrtaceae	Melaleuca lateritia	Robin Redbreast Bush	14
Formicidae	Monomorium pharaonis	Pharaoh Ant	14
Oxalidaceae	Oxalis perennans	Native Sorrel	14

Proteaceae	Persoonia saccata	Snottygobble	14
Asteraceae	Siloxerus humifusus	Procumbent Siloxerus	14
Fabaceae	Sphaerolobium medium		14
Proteaceae	Synaphea odocoileops		14
Asparagaceae	Thysanotus arenarius	Sand-dune Fringed Lily	14
Tiphiidae	Zaspilothynnus seductor		14
Fabaceae	Acacia cyclops	Western Coastal Wattle	13
Apiaceae	Actinotus glomeratus		13
Culicidae	Aedes (Ochlerotatus) camptorhynchus	Mosquito	13
Aponogetonaceae	Aponogeton hexatepalus	Stalked Water Ribbons	13
Acanthaceae	Avicennia marina subsp. marina		13
Crabronidae	Bembix		13
Scutelleridae	Choerocoris paganus	Ground Shield Bug	13
Haemodoraceae	Conostylis setigera subsp. setigera	Bristly Cottonhead	13
Orchidaceae	Cyrtostylis huegelii	Midge Orchid	13
Scarabaeidae	Diphucephala		13
Poaceae	Ehrharta calycina	Perennial Veldt-grass	13
Cyperaceae	Gahnia trifida	Cutting Grass	13
Colletidae	Hylaeus (Euprosopoides) obtusatus		13
Colletidae	Hyleoides zonalis		13
Restionaceae	Hypolaena pubescens		13
Fabaceae	Kennedia carinata		13
Poaceae	Lagurus ovatus	Hare's Tail Grass	13
Halictidae	Lasioglossum (Chilalictus) mirandum		13
	Magnoliopsida		13
Myrtaceae	Melaleuca teretifolia	Banbar	13
Cyperaceae	Mesomelaena graciliceps		13
Formicidae	Myrmecia gulosa	Giant Bull Ant	13
Triaenonychidae	Nunciella aspera		13
Asteraceae	Olearia elaeophila		13
Iridaceae	Patersonia babianoides		13
Pieridae	Pieris rapae	Cabbage White Butterfly	13
Orchidaceae	Prasophyllum parvifolium	Autunm Leek Orchid	13
Pseudocheiridae	Pseudocheirus occidentalis	Western Ringtail Possum	13
Sabellidae	SABELLIDAE	Fan Worm, Feather-duster Worm, Peacock Worm	13
Buprestidae	Stigmodera cancellata		13
Stylidiaceae	Stylidium perplexum		13
Cyperaceae	Tetraria capillaris	Hair Sedge	13
Xanthorrhoeaceae	Xanthorrhoea acanthostachya		13
Fabaceae	Acacia huegelii	Huegel's Wattle	12
Asteraceae	Arctotheca calendula	Cape Weed	12
Cicadidae	Arenopsaltria fullo	Sandgrinder	12
Araneidae	Argiope protensa	Orb-weaver Spider	12
Labridae	Austrolabrus maculatus	Blackspotted Wrasse	12
Dasypogonaceae	Calectasia narragara	Star Of Bethlehem	12
Aizoaceae	Carpobrotus virescens	Pigface	12
Lauraceae	Cassytha glabella	Slender Dodder-laurel	12
Champiaceae	Champia		12
Pomacentridae	Chromis klunzingeri	Blackhead Puller	12
Asteraceae	Cotula turbinata	Ferny Cotula	12
Asteraceae	Craspedia variabilis	Common Billy-buttons	12
Myobatrachidae	Crinia pseudinsignifera	Bleating Froglet	12
Fabaceae	Daviesia divaricata subsp. divaricata		12
Fabaceae	Daviesia preissii		12
Cyperaceae	Ficinia nodosa	Knobby Club-rush	12

Fabaceae	Gompholobium marginatum		12
Proteaceae	Grevillea quercifolia	Oak-leaf Grevillea	12
Artamidae	Gymnorhina tibicen dorsalis	South-western Australian Magpie	12
Procellariidae	Halobaena caerulea	Blue Petrel	12
Hesperiidae	Hesperilla trimaculata occidentalis		12
Zosteraceae	Heterozostera	Garweed	12
Dilleniaceae	Hibbertia amplexicaulis		12
Juncaceae	Juncus kraussii	Sea Rush	12
Anamidae	Kwonkan		12
Fabaceae	Labichea punctata	Lance-leaved Cassia	12
Cyperaceae	Lepidosperma gladiatum	Coast Sword-sedge	12
Restionaceae	Lepyrodia macra	Large Scale Rush	12
Juncaceae	Luzula meridionalis	Common Wood-rush	12
Primulaceae	Lysimachia arvensis	Pimpernel	12
Pittosporaceae	Marianthus tenuis		12
Myrtaceae	Melaleuca preissiana	Moonah	12
Monacanthidae	Meuschenia flavolineata	Yellowstriped Leatherjacket	12
Corophiidae	Monocorophium acherusicum	Mediterranean Corophiid	12
Sargassaceae	Myriodesma		12
Apogonidae	Ostorhinchus victoriae	Western Striped Cardinalfish	12
Iridaceae	Patersonia juncea	Rush Leaved Patersonia	12
Orchidaceae	Prasophyllum fimbria	Fringed Leek Orchid	12
Pentatomidae	Protestrica montana		12
Formicidae	Rhytidoponera		12
Cyperaceae	Schoenus curvifolius		12
Stylidiaceae	Stylidium utricularioides	Pink Fan Triggerplant	12
Asphodelaceae	Trachyandra divaricata	Dune Onion Weed	12
Turnicidae	Turnix (Austroturnix) varius	Painted Button-quail	12
Lentibulariaceae	Utricularia multifida	Pink Petticoats	12
Lycosidae	Venator		12
Cymodoceaceae	Amphibolis griffithii	Griffith's Sea Nymph	11
Mantidae	Archimantis sobrina	Large Brown Mantid	11
Proteaceae	Banksia bipinnatifida subsp. multifida		11
Curculionidae	CURCULIONIDAE		11
Orchidaceae	Caladenia attingens subsp. attingens	Forest Mantis Orchid	11
Hygromiidae	Cochlicella barbara	White Snail	11
Dasypogonaceae	Dasypogon hookeri	Pineapple Bush	11
Droseraceae	Drosera paleacea	Dwarf Sundew	11
Poaceae	Ehrharta longiflora	Annual Veldt-grass	11
Colletidae	Euhesma (Euhesma) morrisoni		11
Rhodymeniaceae	Gloiosaccion brownii		11
	HEMIPTERA	Aphids	11
Coenagrionidae	Ischnura aurora	Aurora Bluetail	11
Campanulaceae	Isotoma hypocrateriformis	Woodbridge Poison	11
Ardeidae	Ixobrychus dubius	Minute Bittern	11
Rhodomelaceae	Laurencia elata		11
Ericaceae	Leucopogon glabellus		11
Pygopodidae	Lialis burtonis	Burton's Snake-lizard	11
Ericaceae	Lysinema pentapetalum	Curry Flower	11
Salticidae	Maratus griseus		11
Orchidaceae	Microtis media subsp. media	Common Mignonette Orchid	11
Iridaceae	Moraea lewisiae	Golden Iris	11
Vespidae	Paragia tricolor		11
Urticaceae	Parietaria debilis	Shade Pellitory	11
Asteraceae	Podolepis gracilis	Slender Podolepis	11
Asteraceae	Rhodanthe citrina	Pale Immortelle	11

Apiaceae	Schoenolaena juncea		11
Columbidae	Spilopelia chinensis	Spotted Turtle-dove	11
Malvaceae	Thomasia grandiflora	Large-flowered Thomasia	11
Asparagaceae	Thysanotus	Fringed Lily	11
Haemodoraceae	Tribonanthes brachypetala	Nodding Tiurndin	11
Crabronidae	Williamsita manifestata		11
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. semibarbata		11
Fabaceae	Acacia incurva		10
Fabaceae	Acacia pulchella var. pulchella	Prickly Moses	10
Fabaceae	Acacia semitrullata		10
Anatidae	Anas (Nettion) castanea	Chestnut Teal	10
Poaceae	Anthoxanthum odoratum	Sweet Vernal-grass	10
Deinopidae	Asianopis schomburgki		10
Myrtaceae	Babingtonia camphorosmae		10
Orobanchaceae	Bellardia viscosa	Yellow Bartsia	10
Rutaceae	Boronia fastigiata	Bushy Boronia	10
Fabaceae	Bossiaea angustifolia		10
Colchicaceae	Burchardia umbellata	Milkmaids	10
	COLEOPTERA	Beetles	10
Orchidaceae	Caladenia georgei	Tuart Spider Orchid	10
Colletidae	Callomelitta		10
Tiphiidae	Catocheilus annulatus		10
Fabaceae	Chorizema cordatum	Flame Pea	10
Locustellidae	Cincloramphus (Cincloramphus) cruralis	Brown Songlark	10
Recurvirostridae	Cladorhynchus leucocephalus	Banded Stilt	10
Coccinellidae	Cleobora mellyi	Southern Ladybird	10
Coccinellidae	Coccinella transversalis	Transverse Ladybird	10
Haemodoraceae	Conostylis laxiflora		10
Crassulaceae	Crassula colorata var. colorata	Dense Crassula	10
Orchidaceae	Cyanicula gemmata	Blue China Orchid	10
	DIPTERA	Flies	10
Poaceae	Dichelachne crinita	Long-hair Plume-grass	10
Droseraceae	Drosera glanduligera	Scarlet Sundew	10
Petroicidae	Eopsaltria		10
Apidae	Exoneura (Exoneura) bicolor	Reed Bee	10
Frankeniaceae	Frankenia pauciflora	Southern Sea-heath	10
Gelidiaceae	Gelidiaceae		10
Fabaceae	Gompholobium shuttleworthii		10
Haloragaceae	Gonocarpus paniculatus		10
Proteaceae	Grevillea pilulifera	Woolly-flowered Grevillea	10
Proteaceae	Grevillea pulchella	Beautiful Grevillea	10
Haemodoraceae	Haemodorum laxum	Bloodroot	10
Corduliidae	Hemicordulia tau	Tau Emerald	10
Araneidae	Hortophora biapicata		10
Colletidae	Hylaeus (Euprosopis) elegans	Plasterer Bee	10
Colletidae	Hylaeus (Gnathoprosopis) amiculus	Plasterer Bee	10
Cyperaceae	Lepidosperma	Swordsedges	10
Restionaceae	Leptocarpus decipiens		10
Restionaceae	Leptocarpus roycei		10
Ericaceae	Leucopogon pulchellus	Beard Heath	10
Asparagaceae	Lomandra sonderi		10
Asparagaceae	Lomandra	Mat Rushes	10
Fabaceae	Lotus angustissimus	Slender Bird's-foot Trefoil	10
Orchidaceae	Lyperanthus serratus	Rattle Beaks	10
Miturgidae	MITURGIDAE	Racing Stripe Spiders	10
Maluridae	Malurus (Leggeornis) elegans	Red-winged Fairy-wren	10

Megachilidae	Megachile (Chalicodomoides) aethiops		10
Formicidae	Myrmecia nigriscapa	Bull Ant	10
Formicidae	Myrmecia		10
Poaceae	Neurachne alopecuroidea	Fox-tail Mulga-grass	10
Olacaceae	Olax benthamiana		10
Julidae	Ommatoiulus moreleti	Portuguese Millipede	10
Libellulidae	Orthetrum caledonicum	Blue Skimmer	10
Oxalidaceae	Oxalis glabra	Finger-leaf Wood-sorrel	10
Terapontidae	Pelates octolineatus	Western Striped Grunter	10
Thymelaeaceae	Pimelea lanata		10
Gobiidae	Pseudogobius olorum	Bluespot Goby	10
Asteraceae	Quinetia urvillei	Quinetia	10
Rhipiceridae	Rhipicera (Agathorhipis) attenuata		10
Iridaceae	Romulea rosea	Onion Grass	10
Chenopodiaceae	Salicornia quinqueflora	Beaded Glasswort	10
Primulaceae	Samolus repens	Creeping Brookweed	10
Cyperaceae	Schoenus efoliatus		10
Cyperaceae	Schoenus grandiflorus	Large Flowered Bog-rush	10
Cyperaceae	Schoenus tenellus		10
Sphecidae	Sphex modestus		10
Proteaceae	Synaphea hians		10
Fabaceae	Templetonia retusa	Cockies Tongue	10
Asteraceae	Trichocline spathulata	Native Gerbera	10
Fabaceae	Trifolium campestre var. campestre	Hop Clover	10
Fabaceae	Vicia sativa	Common Vetch	10
Tiphiidae	Zeleboria carinata		10
Casuarinaceae	Allocasuarina fraseriana	Western Sheoak	9
Araneidae	Arachnura higginsi	Scorpion Tailed Spider	9
Poaceae	Avena barbata	Bearded Oats	9
Chrysomelidae	CHRYSOMELIDAE		9
Orchidaceae	Caladenia reptans subsp. reptans	Little Pink Fairies	9
Commelinaceae	Cartonema philydroides		9
Buprestidae	Castiarina anchoralis		9
Buprestidae	Castiarina pallidiventris		9
Rhodomelaceae	Chondria		9
Haemodoraceae	Conostylis serrulata		9
Artamidae	Cracticus nigrogularis	Pied Butcherbird	9
Goodeniaceae	Dampiera		9
Fabaceae	Daviesia angulata		9
Delesseriaceae	Delesseriaceae		9
Brassicaceae	Diplotaxis tenuifolia	Sand Rocket	9
Orchidaceae	Diuris jonesii	Dunsborough Donkey Orchid	9
Droseraceae	Drosera menziesii	Pink Rainbow	9
Droseraceae	Drosera porrecta	Leafy Sundew	9
Euphorbiaceae	Euphorbia paralias	Sea Spurge	9
Rallidae	Fulica atra australis	Australian Eurasian Coot	9
Fabaceae	Gastrolobium praemorsum		9
Fabaceae	Gastrolobium whicherense		9
Geraniaceae	Geranium retrorsum	Grassland Crane's-bill	9
Strophariaceae	Gymnopilus		9
Dilleniaceae	Hibbertia acerosa	Needle Leaved Guinea Flower	9
Acinetosporaceae	Hincksia mitchelliae		9
Colletidae	Hylaeus (Euprosopis) violaceus	Species Of Yellowfaced Bee	9
Sparassidae	Isopeda leishmanni	Huntsman Spider	9
Fabaceae	Isotropis cuneifolia subsp. cuneifolia	Granny Bonnets	9
Juncaceae	Juncus bufonius	Toad Rush	9

Lamponidae	Lampona cylindrata	White-tailed Spider	9
Colletidae	Leioproctus (Leioproctus) macmillani		9
Orchidaceae	Leptoceras menziesii	Hare Orchid	9
Ericaceae	Leucopogon		9
Buthidae	Lychas		9
Megachilidae	Megachile ignita	Bee	9
Fabaceae	Melilotus indicus	Sweet Melilot	9
Coreidae	Mictis profana	Crusader Bug	9
Asteraceae	Millotia tenuifolia	Soft Millotia	9
Haloragaceae	Myriophyllum crispatum	Upright Milfoil	9
Microcanthidae	Neatypus obliquus	Footballer Sweep	9
Labridae	Olisthops cyanomelas	Herring Cale	9
Marasmiaceae	Omphalotus nidiformis		9
Mantidae	Orthodera ministralis	Green Mantid	9
Iridaceae	Orthrosanthus laxus var. laxus	Morning Iris	9
Noctuidae	Phalaenoides glycinae	Grapevine Moth	9
Thymelaeaceae	Pimelea imbricata var. piligera		9
Thymelaeaceae	Pimelea preissii		9
Sargassaceae	Platythalia		9
Agamidae	Pogona minor minor	Dwarf Bearded Dragon	9
Asteraceae	Pogonolepis stricta		9
Rhodomelaceae	Polysiphonia		9
Elapidae	Pseudonaja affinis	Dugite	9
Rosaceae	Pyrus communis	Pear	9
Chenopodiaceae	Rhagodia baccata subsp. baccata	Berry Saltbush	9
Cyperaceae	Schoenus bifidus		9
Selaginellaceae	Selaginella gracillima	Tiny Clubmoss	9
Nereididae	Simplisetia aequisetis	Squirt Worm	9
Poaceae	Spinifex longifolius	Spinifex	9
Dytiscidae	Sternopriscus browni	Diving Beetle	9
Stylidiaceae	Stylidium megacarpum		9
Stylidiaceae	Stylidium neurophyllum	Fan-leaved Triggerplant	9
Chenopodiaceae	Suaeda australis	Austral Seablite	9
Proteaceae	Synaphea gracillima		9
Orchidaceae	Thelymitra benthamiana	Leopard Sun-orchid	9
Hemerocallidaceae	Tricoryne tenella	Tufted Yellow Rush-lily	9
Tytonidae	Tyto javanica	Eastern Barn Owl	9
Nymphalidae	Vanessa kershawi	Australian Painted Lady	9
Fabaceae	Viminaria juncea	Native Broom	9
Colchicaceae	Wurmbea dioica subsp. alba		9
Tiphiidae	Zaspilothynnus nigripes		9
Myrtaceae	Agonis flexuosa var. flexuosa	Willow Myrtle	8
Mugilidae	Aldrichetta forsteri	Yelloweye Mullet	8
Poaceae	Amphipogon laguroides		8
Corallinaceae	Amphiroa		8
Fabaceae	Aotus gracillima		8
Nereididae	Australonereis ehlersi	Estuarine Bait Worm	8
Lestidae	Austrolestes analis	Slender Ringtail	8
Littorinidae	Austrolittorina unifasciata	Blue Australwink	8
Poaceae	Austrostipa campylachne		8
Poaceae	Avena fatua	Wild Oats	8
Desidae	Badumna insignis	Black House Spider	8
Orchidaceae	Caladenia discoidea	Dancing Spider Orchid	8
Orchidaceae	Caladenia reptans	Little Pink Fairies	8
Myrtaceae	Calothamnus lateralis		8
Candelariaceae	Candelariella xanthostigmoides		8

Lauraceae	Cassytha	Dodder-laurel	8
Buprestidae	Castiarina aureola		8
Caryophyllaceae	Cerastium glomeratum	Common Mouse-ear Chickweed	8
Restionaceae	Chaetanthus aristatus	Bearded Twinerush	8
Codiaceae	Codium		8
Scarabaeidae	Colymbomorpha vittata	Spring Beetle	8
Asteraceae	Craspedia sp. Yalgorup National Park (G.J.Keighery 14449)		8
Hemerocallidaceae	Dianella revoluta var. divaricata	Broad-leaf Flax-lily	8
Pentatomidae	Dictyotus inconspicuus	Shield Bug	8
Onuphidae	Diopatra dentata	Plumed Worm, Shaggy Parchment Tube Worm	8
Droseraceae	Drosera macrantha	Bridal Rainbow	8
Droseraceae	Drosera micrantha		8
Droseraceae	Drosera rosulata		8
Myrtaceae	Eremaea pauciflora var. pauciflora		8
Santalaceae	Exocarpos sparteus	Broombush	8
Apidae	Exoneura (Exoneura) robusta	Reed Bee	8
Poeciliidae	Gambusia holbrooki	Eastern Gambusia	8
Araneidae	Gasteracantha		8
Gelidiaceae	Gelidium		8
Geraniaceae	Geranium molle	Soft Geranium	8
Gigartinaceae	Gigartina		8
Girellidae	Girella zebra	Zebrafish	8
Proteaceae	Grevillea trifida		8
Polynoidae	Harmothoe praeclara	Scale Worm	8
Scincidae	Hemiergis initialis	Southwestern Earless Skink	8
Dilleniaceae	Hibbertia glomerata		8
Dilleniaceae	Hibbertia	Guinea Flowers	8
Violaceae	Hybanthus floribundus	Shrub Spade Flower	8
Araliaceae	Hydrocotyle alata		8
Araliaceae	Hydrocotyle diantha	Kangaroo Island Pennywort	8
Araliaceae	Hydrocotyle intertexta	Buttercup Pennywort	8
Fabaceae	Isotropis cuneifolia	Granny Bonnets	8
Bignoniaceae	Jacaranda mimosifolia	Jacaranda	8
Fabaceae	Jacksonia		8
Kyphosidae	Kyphosus cornelii	Western Buffalo Bream	8
Kyphosidae	Kyphosus sydneyanus	Silver Drummer	8
Halictidae	Lasioglossum (Chilalictus) chapmani	Sweat Bee	8
Restionaceae	Lepyrodia glauca		8
Restionaceae	Lepyrodia muirii		8
Ericaceae	Leucopogon racemulosus		8
Mytilidae	MYTILIDAE		8
Cyperaceae	Machaerina juncea	Bare Twig-rush	8
Myrtaceae	Melaleuca lanceolata	Dryland Tea-tree	8
Percichthyidae	Nannoperca vittata	Western Pygmy Perch	8
Labridae	Notolabrus parilus	Brownspotted Wrasse	8
Stratiomyidae	Odontomyia decipiens		8
Phalacrocoracidae	PHALACROCORACIDAE		8
Procellariidae	Pachyptila salvini	Salvin's Prion	8
Pinguipedidae	Parapercis haackei	Wavy Grubfish	8
Geraniaceae	Pelargonium capitatum	Rose-scented Pelargonium	8
Goniasteridae	Pentagonaster duebeni	Vermillion Seastar	8
Apiaceae	Pentapeltis peltigera		8
Peyssonneliaceae	Peyssonnelia capensis		8
Haemodoraceae	Phlebocarya filifolia		8
Asteraceae	Pithocarpa cordata	Tangle Daisy	8

Plantaginaceae	Plantago lanceolata	Ribwort	8
Apiaceae	Platysace filiformis		8
Araneidae	Plebs cyphoxis	Orb-weaver Spider	8
Threskiornithidae	Plegadis falcinellus	Glossy Ibis	8
Poaceae	Poa poiformis	Coast Tussock-grass	8
Zygaenidae	Pollanisus		8
Poaceae	Polypogon tenellus		8
Orchidaceae	Prasophyllum plumiforme	Little Leek Orchid	8
Orchidaceae	Prasophyllum	Leek Orchids	8
Psathyrellaceae	Psathyrellaceae		8
Orchidaceae	Pterostylis sanguinea	Blood Greenhood	8
Chenopodiaceae	Rhagodia baccata	Berry Saltbush	8
Labridae	Scarus		8
Siganidae	Siganus fuscescens	Black Rabbitfish	8
Labridae	Siphonognathus caninis	Sharpnose Weed Whiting	8
Solanaceae	Solanum nigrum	Black Nightshade	8
Iridaceae	Sparaxis bulbifera	Sparaxis	8
Ericaceae	Sphenotoma capitata		8
Stylidiaceae	Stylidium ciliatum	Golden Triggerplant	8
Stylidiaceae	Stylidium thesioides	Delicate Triggerplant	8
Tabanidae	TABANIDAE		8
Orchidaceae	Thelymitra flexuosa	Twisted Sun-orchid	8
Orchidaceae	Thelymitra pauciflora	Slender Sun Orchid	8
Mullidae	Upeneichthys vlamingii	Bluespotted Goatfish	8
Poaceae	Vulpia myuros	Fescue	8
Asteraceae	Waitzia suaveolens	Fragrant Waitzia	8
Iridaceae	Watsonia meriana var. meriana	Bulbil Watsonia	8
Iridaceae	Watsonia versfeldii	Pink Watsonia	8
Convolvulaceae	Wilsonia humilis	Silky Wilsonia	8
Tiphiidae	Zaspilothynnus dilatatus		8
Cypraeidae	Zoila friendii		8
Vespidae	Abispa (Abispa) ephippium	Potter Wasp	7
Fabaceae	Acacia flagelliformis		7
Fabaceae	Acacia lasiocarpa		7
Fabaceae	Acacia urophylla	Pointed Leaved Acacia	7
Amanitaceae	Amanita		7
Ericaceae	Andersonia heterophylla		7
Asteraceae	Arctotheca populifolia	Beach Daisy	7
Pentatomidae	Arniscus humeralis		7
Arcidae	Barbatia (Barbatia) pistachia	Noah's Ark Shell	7
Cacatuidae	Cacatua		7
Orchidaceae	Caladenia macrostylis	Leaping Spider Orchid	7
Orchidaceae	Caladenia marginata	White Fairy Orchid	7
Portulacaceae	Calandrinia liniflora	Parakeelya	7
Callipappidae	Callipappus		7
Cupressaceae	Callitris preissii	White Pine	7
Leucobryaceae	Campylopus introflexus	Swan-neck Moss	7
Lycaenidae	Candalides		7
Casuarinaceae	Casuarina obesa	Swamp Sheoak	7
Caprifoliaceae	Centranthus macrosiphon	Pretty Betsy	7
Nereididae	Ceratonereis		7
Myrtaceae	Chamelaucium uncinatum	Geraldton Wax	7
Coccidae	Coccus synapheae		7
Polygalaceae	Comesperma volubile	Love Creeper	7
Haemodoraceae	Conostylis aculeata subsp. aculeata		7
Haemodoraceae	Conostylis setigera	Bristly Cottonhead	7

Desidae	Corasoides occidentalis		7
Labridae	Coris auricularis	Western King Wrasse	7
Scolopendridae	Cormocephalus		7
Scincidae	Ctenotus impar	Odd-striped Ctenotus	7
Fabaceae	Daviesia decurrens	Thorny Bitter-pea	7
Chrysomelidae	Dicranosterna hemisphaerica		7
Buprestidae	Diphucrania		7
Orchidaceae	Diuris filifolia	Cat's-face Orchid	7
Droseraceae	Drosera macrantha subsp. macrantha		7
Sporochnaceae	Encyothalia		7
Myrtaceae	Eucalyptus rudis	Flooded Gum	7
Apidae	Exoneura		7
Papaveraceae	Fumaria capreolata	White-flowered Fumitory	7
Fabaceae	Gastrolobium		7
Acrididae	Goniaea australasiae	Gumleaf Grasshopper	7
Strophariaceae	Gymnopilus allantopus		7
Haemodoraceae	Haemodorum spicatum	Bohn	7
Pentatomidae	Halyini		7
Lamiaceae	Hemigenia humilis		7
Tettigoniidae	Hemisaga denticulata		7
Hiatellidae	Hiatella australis	Australian Rock-borer	7
Asteraceae	Hyalosperma cotula		7
Hydrochidae	Hydrochus australis		7
Colletidae	Hylaeus (Euprosopoides) musgravei		7
Colletidae	Hylaeus (Euprosopoides)		7
Colletidae	Hylaeus (Gnathoprosopis) euxanthus	Plasterer Bee	7
Colletidae	Hylaeus (Sphaerhylaeus) globuliferus	Woolybush Bee	7
Cyperaceae	Isolepis cernua	Nodding Club Rush	7
Cyperaceae	Isolepis oldfieldiana		7
Salticidae	Jotus		7
Juncaceae	Juncus holoschoenus	Joint-leaf Rush	7
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	7
Lycaenidae	Lampides boeticus	Long-tailed Pea-blue	7
Malvaceae	Lasiopetalum membranaceum		7
Rhodomelaceae	Laurencia brongniartii		7
Colletidae	Leioproctus (Colletopsis) contrarius	A Short-tongued Bee	7
Cyperaceae	Lepidosperma pubisquameum		7
Santalaceae	Leptomeria cunninghamii		7
Scincidae	Lerista distinguenda	South-western Orange-tailed Slider	7
Ericaceae	Leucopogon sp. Margaret River (J.Scott 207)		7
Lindsaeaceae	Lindsaea linearis	Screw Fern	7
Halictidae	Lipotriches (Austronomia) flavoviridis	Sweat Bee	7
Dictyotaceae	Lobospira		7
Asparagaceae	Lomandra spartea		7
Anarthriaceae	Lyginia imberbis		7
Tellinidae	Macomona deltoidalis	Deltoid Tellen	7
Tiphiidae	Macrothynnus insignis		7
Anatidae	Malacorhynchus membranaceus	Pink-eared Duck	7
Megachilidae	Megachile speluncarum		7
Myrtaceae	Melaleuca parviceps		7
Monacanthidae	Meuschenia hippocrepis	Horseshoe Leatherjacket	7
Actinopodidae	Missulena occatoria	Red-headed Mouse Spider	7
Conopidae	Myopa		7
Myrtaceae	Myrtaceae	Myrtle Family	7
Loganiaceae	Orianthera serpyllifolia		7
Fabaceae	Ornithopus compressus	Neat Bird's-foot	7

Dictyotaceae	Pachydictyon		7
Colletidae	Paracolletes		7
Plesiopidae	Paraplesiops meleagris	Southern Blue Devil	7
Gerreidae	Parequula melbournensis	Silverbelly	7
Pomacentridae	Parma mccullochi	Mcculloch's Scalyfin	7
Pempheridae	Pempheris multiradiata	Bigscale Bullseye	7
Phacelocarpaceae	Phacelocarpus sessilis		7
Dasyuridae	Phascogale tapoatafa wambenger	Wambenger	7
Philydraceae	Philydrella pygmaea subsp. pygmaea		7
Thymelaeaceae	Pimelea rosea	Rose Banjine	7
Fomitopsidaceae	Piptoporus australiensis		7
Poaceae	Poa drummondiana	Knotted Poa	7
Vespidae	Polistes (Polistes) dominulus		7
Phyllanthaceae	Poranthera microphylla	Small Poranthera	7
Posidoniaceae	Posidonia sinuosa	Narrow-leaf Tapeweed	7
Orchidaceae	Prasophyllum giganteum	Bronze Leek Orchid	7
Myobatrachidae	Pseudophryne guentheri	Gunther's Toadlet	7
Cyperaceae	Schoenus sculptus	Gimlet Bog-rush	7
Scorpididae	Scorpis georgiana	Banded Sweep	7
Scytosiphonaceae	Scytosiphon lomentaria	Brown Algae	7
Laridae	Sterninae		7
Boodleaceae	Struvea		7
Proteaceae	Synaphea floribunda		7
Proteaceae	Synaphea petiolaris subsp. petiolaris		7
Proteaceae	Synaphea polypodioides		7
Proteaceae	Synaphea spinulosa subsp. spinulosa		7
Proteaceae	Synaphea		7
Myrtaceae	Taxandria linearifolia		7
Orchidaceae	Thelymitra	Sun Orchids	7
Asparagaceae	Thysanotus tenellus	Grassy Fringe-lily	7
Hydatellaceae	Trithuria submersa	Trithuria	7
Vespidae	VESPIDAE	Potter Wasps	7
Apiaceae	Xanthosia candida		7
Fabaceae	Acacia tetragonocarpa		6
Amanitaceae	Amanita xanthocephala		6
Euphorbiaceae	Amperea ericoides		6
Aeshnidae	Anax papuensis	Australian Emperor	6
Pentatomidae	Anaxilaus vesiculosus	Shield Bug	6
Haemodoraceae	Anigozanthos humilis subsp. humilis	Catspaw	6
Haemodoraceae	Anigozanthos	Kangaroo Paw	6
Typhlopidae	Anilios australis	Southern Blind Snake	6
Aracanidae	Aracana aurita	Shaw's Cowfish	6
Myrtaceae	Astartea		6
	BLATTODEA	Cockroaches	6
Araneidae	Backobourkia		6
Desidae	Baiami volucripes		6
Proteaceae	Banksia sessilis		6
Psittacidae	Barnardius zonarius semitorquatus	Twenty-eight Parrot	6
Crabronidae	Bembix variabilis	Wasp	6
Asteraceae	Brachyscome iberidifolia	Brachyscome	6
Carabidae	CARABIDAE		6
Cacatuidae	Cacatua (Licmetis) pastinator	Western Corella	6
Anatidae	Cairina moschata	Muscovy Duck	6
Brassicaceae	Cakile maritima	Sea Rocket	6
Plantaginaceae	Callitriche stagnalis	Common Water-starwort	6
Anisolabididae	Carcinophora occidentalis		6

Cyperaceae	Carex thecata		6
Lauraceae	Cassytha racemosa f. racemosa		6
Casuarinaceae	Casuarinaceae	Sheoak	6
Curculionidae	Catasarcus		6
Araneidae	Celaenia excavata	Bird Dropping Spider	6
Crabronidae	Cerceris		6
Coccinellidae	Cheilomenes sexmaculata		6
Chrysothricaceae	Chrysothrix candelaris	Gold Dust Lichen	6
Haemodoraceae	Conostylis		6
Corvidae	Corvus splendens	House Crow	6
Acrididae	Coryphistes ruricola	Bark-mimicking Grasshopper	6
Pompilidae	Cryptocheilus bicolor	Orange Spider Wasp	6
Gracilariaceae	Curdiea		6
Vespidae	Delta bicinctum	Wasp	6
Poaceae	Deyeuxia quadriseta	Slender Reed Bent-grass	6
Dicaeidae	Dicaeum (Dicaeum) hirundinaceum	Mistletoebird	6
Fabaceae	Dillwynia uncinata	Silky Parrot-pea	6
Orchidaceae	Diuris corymbosa	Common Donkey Orchid	6
Orchidaceae	Drakaea livida	Warty Hammer Orchid	6
Chenopodiaceae	Dysphania ambrosioides	Mexican Tea	6
Cyperaceae	Eleocharis keigheryi	Keighery's Eleocharis	6
Apiaceae	Eryngium pinnatifidum	Blue Devils	6
Parmeliaceae	Flavoparmelia rutidota	Common Biscuit Lichen	6
Iridaceae	Freesia	Freesia	6
Rubiaceae	Galium murale	Small Bedstraw	6
	Gigartinales		6
Goodeniaceae	Goodenia micrantha		6
Coccinellidae	Harmonia conformis	Common Spotted Ladybird	6
Scincidae	Hemiergis gracilipes	South-western Mulch-skink	6
Scincidae	Hemiergis peronii	Lowlands Earless Skink	6
Lamiaceae	Hemigenia incana	Silky Hemigenia	6
Serpulidae	Hydroides amri		6
Colletidae	Hylaeus (Euprosopoides) ruficeps kalamundae		6
Colletidae	Hylaeus (Prosopisteron)		6
Serranidae	Hypoplectrodes nigroruber	Banded Seaperch	6
Formicidae	Iridomyrmex purpureus	Meat Ant	6
Nymphalidae	Junonia villida calybe	Meadow Argus Butterfly	6
Lamponidae	Lampona		6
Halictidae	Lasioglossum (Chilalictus) supralucens		6
Cyperaceae	Lepidosperma scabrum	Scabrid Sword-sedge	6
Scincidae	Lerista elegans	Elegant Slider	6
Ericaceae	Leucopogon oxycedrus		6
Campanulaceae	Lobelia anceps	Angled Lobelia	6
Asparagaceae	Lomandra micrantha	Small-flower Mat-rush	6
Fabaceae	Lotus subbiflorus	Hairy Bird's-foot Trefoil	6
Lumbrineridae	Lumbrineris		6
Cyperaceae	Machaerina arthrophylla	Baumea	6
Maluridae	Malurus		6
Salticidae	Maratus madelineae		6
Pittosporaceae	Marianthus candidus	White Marianthus	6
Megachilidae	Megachile (Hackeriapis) canifrons	Bee	6
Megachilidae	Megachile erythropyga	Bee	6
Myrtaceae	Melaleuca trichophylla		6
Myrtaceae	Melaleuca viminea subsp. viminea	Weeping Honey-myrtle	6
Syrphidae	Melangyna (Austrosyrphus) viridiceps	Hover Fly	6
Meliphagidae	Melithreptus (Eidopsarus) brevirostris	Brown-headed Honeyeater	6

Monacanthidae	Meuschenia freycineti	Sixspine Leatherjacket	6
Monarchidae	Myiagra (Seisura) inquieta	Restless Flycatcher	6
Nereididae	Neanthes vaalii	Rag Worm	6
Onagraceae	Oenothera drummondii	Beach Evening Primrose	6
Rubiaceae	Opercularia hispidula	Hispid Stinkweed	6
Ophiactidae	Ophiactis		6
Coccinellidae	Orcus australasiae		6
Menyanthaceae	Ornduffia parnassifolia		6
Ostreidae	Ostrea angasi	Native Oyster	6
Colletidae	Pachyprosopis (Pachyprosopis) haematostoma	Plasterer Bee	6
Procellariidae	Pachyptila vittata	Broad-billed Prion	6
Pomacentridae	Parma victoriae	Scalyfin	6
Parmeliaceae	Parmeliaceae		6
Geraniaceae	Pelargonium littorale	Native Pelargonium	6
Myrtaceae	Pericalymma ellipticum var. floridum		6
Scytosiphonaceae	Petalonia fascia		6
Thymelaeaceae	Pimelea	Rice Flowers	6
Vespidae	Polistes		6
Rallidae	Porzana		6
Orchidaceae	Pterostylis barbata	Bird Orchid	6
Orchidaceae	Pterostylis crispula	Slender Snail Orchid	6
Orchidaceae	Pterostylis sp. crinkled leaf (G.J.Keighery 13426)		6
Procellariidae	Puffinus (Puffinus) assimilis tunneyi	Western Australian Little Shearwater	6
Racopilaceae	Racopilum cuspidigerum var. convolutaceum	Common Carpet-moss	6
Tettigoniidae	Requena kadyakia		6
Tiphiidae	Rhagigaster consanguineus		6
Poaceae	Rytidosperma pilosum	Large Velvet Wallaby-grass	6
Cyperaceae	Schoenoplectus pungens	Spiky Club-rush	6
Cyperaceae	Schoenus odontocarpus		6
Cyperaceae	Schoenus plumosus		6
Cyperaceae	Schoenus rigens		6
Asteraceae	Senecio pinnatifolius	Variable Groundsel	6
Caryophyllaceae	Silene gallica	French Catchfly	6
Sphecidae	Sphex formosellus		6
Poaceae	Sporobolus virginicus	Marine Couch	6
Celastraceae	Stackhousia	Candles	6
Stereaceae	Stereum		6
Stylidiaceae	Stylidium carnosum	Fleshy-leaved Triggerplant	6
Stylidiaceae	Stylidium spathulatum	Creamy Triggerplant	6
Aizoaceae	Tetragonia decumbens	Sea Spinach	6
Elaeocarpaceae	Tetratheca hispidissima		6
Semelidae	Theora lata	Shining Theora	6
Haemodoraceae	Tribonanthes australis	Southern Tiurndin	6
Nemestrinidae	Trichophthalma (Trichophthalma) variolosa		6
Hemerocallidaceae	Tricoryne humilis		6
Fabaceae	Trifolium subterraneum	Subterranean Clover	6
Juncaginaceae	Triglochin mucronata	Prickly Arrowgrass	6
Hydatellaceae	Trithuria bibracteata		6
Parmeliaceae	Usnea inermis		6
Parmeliaceae	Usnea		6
Nymphalidae	Vanessa cardui	Painted Lady	6
Goodeniaceae	Velleia trinervis		6
Lycosidae	Venator immansueta	Wolf Spider	6
Myrtaceae	Verticordia attenuata		6
Pluteaceae	Volvopluteus gloiocephalus		6
Campanulaceae	Wahlenbergia capensis	Cape Bluebell	6

Araceae	Zantedeschia aethiopica	White Arum Lily	6
	ARACHNIDA		5
Fabaceae	Acacia obovata		5
Fabaceae	Acacia rostellifera	Summer-scented Wattle	5
Fabaceae	Acacia teretifolia		5
Tenebrionidae	Adelium vicarium		5
Agaricaceae	Agaricus		5
Amaryllidaceae	Amaryllis belladonna	Belladonna Lily	5
Poaceae	Amphibromus nervosus	Swamp Wallaby Grass	5
Asteraceae	Angianthus preissianus	Salt Angianthus	5
Solanaceae	Anthocercis littorea	Yellow Tailflower	5
Arkyidae	Arkys walckenaeri	Walckenaer's Studded Triangular Spider	5
Asparagaceae	Asparagus asparagoides	Western Cape Bridal Creeper	5
Asteraceae	Asteraceae	Daisy	5
Lestidae	Austrolestes io	Iota Ringtail	5
Iridaceae	Babiana angustifolia	Baboon Flower	5
Desidae	Baiami		5
Proteaceae	Banksia nivea		5
Pottiaceae	Barbula calycina	Common Beard-moss	5
Cercopidae	Bathyllus albicinctus	Froghopper	5
Orobanchaceae	Bellardia trixago	Bellardia	5
Rutaceae	Boronia defoliata		5
Boryaceae	Borya scirpoidea		5
Poaceae	Bromus arenarius	Sand Brome	5
	CHORDATA	Chordates	5
Cirolanidae	CIROLANIDAE		5
Cirratulidae	CIRRATULIDAE		5
Hemerocallidaceae	Caesia occidentalis	Pale Grass Lily	5
Orchidaceae	Caladenia arrecta	Reaching Spider Orchid	5
Orchidaceae	Caladenia longicauda subsp. longicauda	White Spider Orchid	5
Orchidaceae	Caleana nigrita		5
Scolopacidae	Calidris (Calidris) tenuirostris	Great Knot	5
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii naso	Forest Red-tailed Black-cockatoo	5
Myrtaceae	Calytrix angulata	Yellow Starflower	5
Aizoaceae	Carpobrotus	Pigface	5
Buprestidae	Castiarina placida		5
Buprestidae	Castiarina subtrifasciata		5
Casuarinaceae	Casuarina glauca	Swamp Oak	5
Curculionidae	Catasarcus hopei		5
Acrididae	Cedarinia		5
Centrolepidaceae	Centrolepis polygyna	Wiry Centrolepis	5
Cuculidae	Chalcites basalis	Horsfield's Bronze-cuckoo	5
Cheluridae	Chelura terebrans		5
Labridae	Choerodon rubescens	Baldchin Groper	5
Asteraceae	Chondrilla juncea	Skeleton Weed	5
Cyperaceae	Chorizandra enodis	Black Bristle-sedge	5
Gentianaceae	Cicendia filiformis	Slender Cicendia	5
Climacteridae	Climacteris (Climacteris) rufus	Rufous Treecreeper	5
Scytosiphonaceae	Colpomenia sinuosa	Brown Algae	5
Bombyliidae	Comptosia tendens		5
Conidae	Conus (Floraconus) anemone	The Anemone Cone	5
Agaricaceae	Coprinus		5
Coronulidae	Coronula diadema		5
Poaceae	Cortaderia selloana subsp. selloana	Pampas Grass	5
Asteraceae	Cotula coronopifolia	Water Buttons	5
Myobatrachidae	Crinia		5

Geometridae	Crypsiphona ocultaria	Redlined Geometrid Moth	5
Orchidaceae	Cryptostylis ovata	Tongue Orchid	5
Araneidae	Cyclosa trilobata	Three Lobed Spider	5
Poaceae	Cynodon dactylon	Couch	5
Cyperaceae	Cyperus eragrostis	Drain Flat-sedge	5
Cyperaceae	Cyperus tenuiflorus	Scaly Sedge	5
Goodeniaceae	Dampiera alata	Winged-stemmed Dampiera	5
Goodeniaceae	Dampiera pedunculata		5
Colletidae	Dasyhesma scholtziae		5
Muricidae	Dicathais orbita	Cartrut Shell	5
Chrysomelidae	Dicranosterna		5
Diodontidae	Diodon nicthemerus	Globefish	5
Onuphidae	Diopatra aciculata	Beach Worm	5
Fabaceae	Dipogon lignosus	Common Dolichos Pea	5
Casuariidae	Dromaius novaehollandiae	Emu	5
Droseraceae	Drosera indumenta		5
Droseraceae	Drosera	Sundews	5
Scrophulariaceae	Eremophila glabra subsp. albicans	Tar Bush	5
Ericaceae	Ericaceae	Austral Heaths	5
Geraniaceae	Erodium botrys	Big Herons-bill	5
Myrtaceae	Eucalyptus rudis subsp. rudis	Flooded Gum	5
Colletidae	Euryglossa rubricata	Plasterer Bee	5
Cyperaceae	Evandra pauciflora		5
Parmeliaceae	Flavoparmelia soredians		5
Parmeliaceae	Flavoparmelia		5
Gryllacrididae	GRYLLACRIDIDAE		5
Galaxiidae	Galaxias occidentalis	Western Galaxias	5
Glyceridae	Glycera ovigera	Blood Worm	5
Reduviidae	Gminatus australis	Assassin Bug	5
Proteaceae	Grevillea bipinnatifida	Fuchsia Grevillea	5
Tetrarogidae	Gymnapistes marmoratus	Soldier	5
Hirundinidae	HIRUNDINIDAE	Asian House Martin	5
Haemodoraceae	Haemodorum simplex		5
Helicarionidae	Helicarion castanea	A Helicarionid Land Snail	5
Salticidae	Helpis		5
Hesperiidae	Hesperilla donnysa	Varied Sedge-skipper	5
Nymphalidae	Heteronympha merope	Common Brown Butterfly	5
Psammobiidae	Hiatula biradiata	Double-rayed Sunset Clam	5
Colletidae	Hylaeus (Rhodohylaeus) rufipes		5
Cyperaceae	Isolepis cyperoides		5
Cyperaceae	Isolepis levynsiana	Tiny Flat-sedge	5
Pentatomidae	Kapunda troughtoni	Variable Shield Bug	5
Pentatomidae	Kapunda		5
Myrtaceae	Kunzea baxteri	Crimson Kunzea	5
Hydnangiaceae	Laccaria		5
Halictidae	Lasioglossum (Chilalictus) castor		5
Halictidae	Lasioglossum (Parasphecodes) hiltacum	Sweat Bee	5
Goodeniaceae	Lechenaultia expansa		5
Goodeniaceae	Lechenaultia floribunda	Free-flowering Leschenaultia	5
Colletidae	Leioproctus		5
Tiphiidae	Lestricothynnus optimus		5
Asteraceae	Leucophyta brownii	Coast Cushion Bush	5
Limnoriidae	Limnoria quadripunctata		5
Limnoriidae	Limnoria tripunctata		5
Hydrophilidae	Limnoxenus zealandicus	Water Scavenger Beetle	5
Campanulaceae	Lobelia		5

Asparagaceae	Lomandra integra		5
Asparagaceae	Lomandra micrantha subsp. micrantha	Small-flower Mat-rush	5
Primulaceae	Lysimachia loeflingii		5
Ericaceae	Lysinema		5
	MANTODEA	Mantises	5
Salticidae	Maratus suae		5
Meliphagidae	Melithreptus (Melithreptus) lunatus	White-naped Honeyeater	5
Buprestidae	Melobasis		5
Tettigoniidae	Metaballus		5
Orchidaceae	Microtis	Onion Orchids	5
Corophiidae	Monocorophium sextonae		5
Euphorbiaceae	Monotaxis grandiflora	Diamond Of The Desert	5
Formicidae	Myrmecia swalei		5
Elapidae	Notechis scutatus	Tiger Snake	5
Pentatomidae	Oechalia schellenbergii	Predatory Shield Bug	5
Onagraceae	Oenothera mollissima		5
Rubiaceae	Opercularia vaginata	Dog Weed	5
Labridae	Ophthalmolepis lineolata	Southern Maori Wrasse	5
Orectolobidae	Orectolobus halei	Gulf Wobbegong	5
Menyanthaceae	Ornduffia submersa		5
Curculionidae	Otiorhynchus cribricollis	Apple Weevil	5
Pentatomidae	PENTATOMIDAE		5
Pomacentridae	Parma occidentalis	Western Scalyfin	5
Parmeliaceae	Parmotrema reticulatum		5
Iridaceae	Patersonia umbrosa	Yellow Flags	5
Chrysomelidae	Peltoschema		5
Myrtaceae	Pericalymma ellipticum var. ellipticum		5
Proteaceae	Petrophile striata		5
Poaceae	Phalaris angusta		5
Columbidae	Phaps (Phaps) elegans	Brush Bronzewing	5
Thymelaeaceae	Pimelea sulphurea	Yellow Banjine	5
Podocarpaceae	Podocarpus drouynianus	Wild Plum	5
Chordariaceae	Polycerea		5
Proteaceae	Proteaceae	Banksia	5
Pterocladiaceae	Pterocladia lucida		5
Procellariidae	Pterodroma (Pterodroma) lessonii	White-headed Petrel	5
Meliphagidae	Ptilotula ornata	Yellow-plumed Honeyeater	5
Fabaceae	Pultenaea radiata		5
Polyporaceae	Pycnoporus coccineus		5
Reduviidae	REDUVIIDAE		5
Muridae	Rattus rattus	Black Rat	5
Iridaceae	Romulea rosea var. australis	Guilford Grass	5
Goodeniaceae	Scaevola phlebopetala	Velvet Fanflower	5
Goodeniaceae	Scaevola striata	Royal Robe	5
Dorvilleidae	Schistomeringos loveni		5
Scorpaenidae	Scorpaena sumptuosa	Western Red Scorpionfish	5
Asteraceae	Senecio depressicola	Senecio	5
Asteraceae	Senecio multicaulis subsp. multicaulis		5
Sepiidae	Sepia	Cuttlefishes	5
Fabaceae	Sphaerolobium linophyllum		5
Sphecidae	Sphex cognatus		5
Picrodendraceae	Stachystemon virgatus		5
Cerambycidae	Stenoderus suturalis		5
Stylidiaceae	Stylidium amoenum var. amoenum		5
Stylidiaceae	Stylidium paludicola	Swamp Reed Triggerplant	5
Proteaceae	Synaphea petiolaris subsp. simplex		5

Proteaceae	Synaphea whicherensis		5
Theridiidae	THERIDIIDAE		5
Orchidaceae	Thelymitra graminea	Shy Sun Orchid	5
	Tracheophyta		5
Haemodoraceae	Tribonanthes longipetala	Branching Tiurndin	5
Rallidae	Tribonyx ventralis	Black-tailed Native-hen	5
Psittacidae	Trichoglossus		5
Cyperaceae	Tricostularia neesii var. neesii		5
Fabaceae	Trifolium campestre	Hop Clover	5
Fabaceae	Trifolium cernuum	Drooping-flower Clover	5
Fabaceae	Trifolium dubium	Suckling Clover	5
Delphinidae	Tursiops aduncus	Long-beaked Bottle-nosed Dolphin	5
Asteraceae	Vellereophyton dealbatum	White Cudweed	5
Plantaginaceae	Veronica arvensis	Wall Speedwell	5
Poaceae	Vulpia bromoides	Squirrel-tail Fescue	5
Asteraceae	Waitzia suaveolens var. suaveolens		5
Tiphiidae	Zaspilothynnus gilesi		5
Lycaenidae	Zizina otis labradus	Common Grass-blue	5
	ARTHROPODA	Arthropods	4
Asilidae	ASILIDAE	Robber Flies	4
Hepialidae	Abantiades hydrographus		4
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	4
Fabaceae	Acacia vestita	Hairy Wattle	4
Monacanthidae	Acanthaluteres brownii	Spinytail Leatherjacket	4
Culicidae	Aedes		4
Hemerocallidaceae	Agrostocrinum		4
Aizoaceae	Aizoon pubescens	Galenia	4
Bombyliidae	Aleucosia		4
Fissurellidae	Amblychilepas oblonga	Oblong Keyhole Limpet	4
Anatidae	Anas superciliosa X platyrhynchos	Geese	4
Ericaceae	Andersonia involucrata		4
Phasmatidae	Anophelepis telesphorus	Short-winged Stick-insect	4
Goodeniaceae	Anthotium junciforme	Rush-like Anthotium	4
Apiaceae	Apium prostratum var. prostratum	Native Celery	4
Chrysomelidae	Aporocera		4
Mantidae	Archimantis		4
Ardeidae	Ardea		4
Erebidae	Ardices glatignyi		4
Chordariaceae	Asperococcus bullosus	Brown Algae	4
Myrtaceae	Astartea affinis	West-coast Astartea	4
Chenopodiaceae	Atriplex cinerea	Coast Saltbush	4
Lestidae	Austrolestes annulosus	Blue Ringtail	4
	BRACHYCERA		4
Araneidae	Backobourkia brouni	Orb-weaver Spider	4
Balanidae	Balanus trigonus		4
Teredinidae	Bankia australis	Bankia Or Many-coned Shipworm	4
Proteaceae	Banksia armata var. armata		4
Proteaceae	Banksia	Banksia	4
	Basidiomycota		4
Crabronidae	Bembix vespiformis	Wasp	4
Migidae	Bertmainius opimus	Western Pygmy Trapdoor Spider	4
Labridae	Bodianus frenchii	Foxfish	4
Rutaceae	Boronia		4
Fabaceae	Bossiaea pulchella		4
Poaceae	Bromus catharticus	Prairie Grass	4
Scarabaeidae	Bubas bison		4

Capitellidae	CAPITELLIDAE		4
Cerambycidae	CERAMBYCIDAE		4
Chironomidae	CHIRONOMIDAE		4
Chrysopidae	CHRYSOPIDAE		4
Coccidae	COCCIDAE		4
Coccinellidae	COCCINELLIDAE		4
Cerithiidae	Cacozeliana granarium		4
Orchidaceae	Caladenia attingens	Forest Mantis Orchid	4
Orchidaceae	Caladenia hirta subsp. hirta	Sugar Candy Orchid	4
Orchidaceae	Caladenia longicauda subsp. eminens	Stark White Spider Orchid	4
Orchidaceae	Caladenia nobilis	Noble Spider Orchid	4
Orchidaceae	Caladenia pectinata	King Spider Orchid	4
Orchidaceae	Caladenia vulgata	Spider Orchid	4
Poaceae	Calamagrostis arenaria	Marram Grass	4
Myrtaceae	Calothamnus quadrifidus	Common Net Bush	4
Euphorbiaceae	Calycopeplus oligandrus		4
Myrtaceae	Calytrix fraseri	Pink Summer Calytrix	4
Cancellothyrididae	Cancellothyris hedleyi		4
Caprellidae	Caprella		4
Cyperaceae	Carex tereticaulis	Poong'ort	4
Buprestidae	Castiarina aquila		4
Buprestidae	Castiarina crenata		4
Casuarinaceae	Casuarina cunninghamiana	River She-oak	4
Curculionidae	Catasarcus cygnensis		4
Tiphiidae	Catocheilus inconstans		4
Cyperaceae	Caustis sp. Boyanup (G.S.McCutcheon 1706)		4
Centrolepidaceae	Centrolepis glabra	Smooth Centrolepis	4
Centrolepidaceae	Centrolepis mutica		4
Hesperiidae	Cephrenes augiades	Orange Palm-dart	4
Bothriuridae	Cercophonius		4
Pentatomidae	Cermatulus nasalis	Predatory Shield Bug	4
Cladophoraceae	Chaetomorpha aerea	Green Algae	4
Cirratulidae	Cirriformia filigera		4
Cladoniaceae	Cladonia		4
Ranunculaceae	Clematis pubescens	Common Clematis	4
Conidae	Conus (Klemaeconus) klemae	Klem'sp. Cone	4
Helicidae	Cornu apertus	Green Snail	4
Helicidae	Cornu aspersum	Common Garden Snail	4
Cortinariaceae	Cortinarius		4
Hemerocallidaceae	Corynotheca micrantha var. micrantha	Sand Lily	4
Asteraceae	Craspedia	Billy Buttons	4
Cystocloniaceae	Craspedocarpus		4
Pompilidae	Cryptocheilus		4
Coccinellidae	Cryptolaemus montrouzieri		4
Juncaginaceae	Cycnogeton lineare		4
Anatidae	Cygnus (Chenopis) atratus	Black Swan	4
Cyperaceae	Cyperaceae	Button Rush	4
Cheilodactylidae	Dactylophora nigricans	Dusky Morwong	4
Nymphalidae	Danaus plexippus	Wanderer	4
Myrtaceae	Darwinia citriodora	Lemon-scented Darwinia	4
Fabaceae	Daviesia decurrens subsp. decurrens		4
Fabaceae	Daviesia divaricata	Marno	4
Fabaceae	Daviesia hakeoides subsp. hakeoides		4
Diaporthaceae	Diaporthe		4
Melyridae	Dicranolaius bellulus	Red And Blue Beetle	4
Fabaceae	Dillwynia sp. Capel (P.A.Jurjevich 1771)		4

Buprestidae	Diphucrania stigmata		4
Orchidaceae	Diuris cruenta	Kermerton [sic; Kemerton] Donkey Orchid	4
Orchidaceae	Diuris magnifica	Pansy Orchid	4
Orchidaceae	Diuris tinctoria	Sandplain Donkey Orchid	4
Sapindaceae	Dodonaea aptera	Coast Hopbush	4
Droseraceae	Drosera pulchella	Pretty Sundew	4
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	4
Eurybrachidae	EURYBRACHIDAE		4
Evaniidae	EVANIIDAE		4
Scincidae	Egernia kingii	King's Skink	4
Elapidae	Elapognathus coronatus	Western Crowned Snake	4
Pseudophyllodromiidae	Ellipsidion humerale	Bush Cockroach	4
Ischyroceridae	Ericthonius		4
Asteraceae	Erigeron sumatrensis	Tall Fleabane	4
Orchidaceae	Eriochilus scaber subsp. scaber	Pink Bunny Orchid	4
Syrphidae	Eristalinus (Lathyrophthalmus) punctulatus	Native Drone Fly	4
Syrphidae	Eristalis (Eristalis) tenax	Drone Fly	4
Monacanthidae	Eubalichthys mosaicus	Mosaic Leatherjacket	4
Myrtaceae	Eucalyptus rudis subsp. cratyantha	Large-flowered Flooded Gum	4
Santalaceae	Exocarpos odoratus	Scented Ballart	4
Iridaceae	Ferraria crispa	Black Flag	4
Ophidiasteridae	Fromia		4
Hymenochaetaceae	Fuscoporia gilva		4
	GASTROPODA		4
Gasteruptiidae	Gasteruption breviscutum		4
Fabaceae	Genista linifolia	Flax-leaf Broom	4
Fabaceae	Gompholobium	Wedge Peas	4
Goodeniaceae	Goodenia pulchella		4
Proteaceae	Grevillea diversifolia subsp. diversifolia		4
Proteaceae	Grevillea pulchella subsp. ascendens		4
Proteaceae	Grevillea vestita subsp. vestita		4
Gryllotalpidae	Gryllotalpa		4
Strophariaceae	Gymnopilus junonius		4
Haemodoraceae	Haemodorum sparsiflorum	Mardja	4
Proteaceae	Hakea prostrata	Harsh Hakea	4
Proteaceae	Hakea sulcata	Furrowed Hakea	4
Haliotidae	Haliotis scalaris	Staircase Abalone	4
Coccinellidae	Hippodamia variegata	Spotted Amber Ladybird	4
Asteraceae	Hyalosperma pusillum		4
Araliaceae	Hydrocotyle callicarpa	Tiny Pennywort	4
Serpulidae	Hydroides dirampha	Tube Worm	4
Serpulidae	Hydroides		4
Colletidae	Hylaeus (Rhodohylaeus) proximus	Plasterer Bee	4
Hymenochaetaceae	Hymenochaetaceae		4
Idiopidae	Idiosoma		4
Formicidae	Iridomyrmex		4
Teloschistaceae	Jackelixia elixii		4
Fabaceae	Jacksonia sternbergiana	Stinkwood	4
Juncaceae	Juncus capitatus	Dwarf Rush	4
Fabaceae	Kennedia coccinea subsp. coccinea		4
Myrtaceae	Kunzea micrantha		4
Poaceae	Lachnagrostis plebeia	Coarse Blowngrass	4
Malvaceae	Lagunaria patersonia	Sally Wood	4
Lucanidae	Lamprima aurata	Golden Stag Beetle	4
Halictidae	Lasioglossum (Chilalictus) ochrochilum		4
Asparagaceae	Laxmannia sessiliflora	Nodding Lily	4

Acrobolbaceae	Lethocolea pansa	Common Pouchwort	4
Ericaceae	Leucopogon australis	Spike Beard-heath	4
Ericaceae	Leucopogon verticillatus	Tassel Flower	4
Menyanthaceae	Liparophyllum latifolium		4
Curculionidae	Listroderes foveatus		4
Mugilidae	Liza argentea	Goldspot Mullet	4
Campanulaceae	Lobelia rhytidosperma	Wrinkle-seeded Lobelia	4
Asparagaceae	Lomandra brittanii		4
Asparagaceae	Lomandra nutans		4
Asparagaceae	Lomandra odora	Fragrant Mat Rush	4
Fabaceae	Lupinus cosentinii	Sandplain Lupin	4
Mantidae	MANTIDAE		4
Muscidae	MUSCIDAE		4
Macropodidae	Macropus fuliginosus melanops	[black-faced Kangaroo]	4
Maluridae	Malurus (Malurus) splendens splendens	Western Splendid Fairy-wren	4
Salticidae	Maratus		4
Fabaceae	Medicago polymorpha	Spineless Burr Medic	4
Megachilidae	Megachile (Hackeriapis) oblonga	Bee	4
Myrtaceae	Melaleuca armillaris	Giant Honey Myrtle	4
Myrtaceae	Melaleuca incana subsp. incana	Grey Honey-myrtle	4
Lygaeidae	Melanerythrus mactans	Bug	4
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	4
Fabaceae	Melilotus siculus	Messinia	4
Lamiaceae	Mentha pulegium	Pennyroyal	4
Asteraceae	Millotia tenuifolia var. tenuifolia	Soft Millotia	4
Campanulaceae	Monopsis debilis	Pansy Lobelia	4
Mugilidae	Mugil cephalus	Sea Mullet	4
Mysidae	Mysidetes		4
Goniasteridae	Nectria wilsoni	Seastar	4
Psittacidae	Neophema (Neonanodes) petrophila	Rock Parrot	4
Nephtyidae	Nephtys gravieri		4
Nereididae	Nereis cirriseta	Rag Worm	4
Scolopacidae	Numenius (Numenius) madagascariensis	Eastern Curlew	4
	ODONATA	Dragonflies	4
	ORTHOPTERA		4
Scarabaeidae	Onthophagus ferox	Western Dung Beetle	4
Scarabaeidae	Onthophagus taurus	Bullhorned Dung Beetle	4
Scarabaeidae	Onthophagus		4
Orchidaceae	Orchidaceae	Orchids	4
Menyanthaceae	Ornduffia albiflora		4
Asparagaceae	Ornithogalum arabicum	Star Of Africa	4
Apogonidae	Ostorhinchus rueppellii	Western Gobbleguts	4
Polybiidae	Ovalipes australiensis	Ocean Sand Crab	4
Oxalidaceae	Oxalis pes-caprae	Soursob	4
Pholcidae	PHOLCIDAE	Daddy-long-legs Spiders	4
Blenniidae	Parablennius postoculomaculatus	False Tasmanian Blenny	4
Leucothoidae	Paraleucothoe novaehollandiae		4
Orobanchaceae	Parentucellia latifolia	Red Bartsia	4
Poaceae	Paspalum dilatatum	Paspalum	4
Iridaceae	Patersonia limbata		4
Polygonaceae	Persicaria prostrata	Creeping Knotweed	4
Petroicidae	Petroica (Petroica) goodenovii	Red-capped Robin	4
Proteaceae	Petrophile	Conesticks	4
Peyssonneliaceae	Peyssonnelia novae-hollandiae		4
Phalacrocoracidae	Phalacrocorax (Phalacrocorax) carbo novaehollandiae	Australasian Great Cormorant	4
Turbinidae	Phasianella australis	Australian Pheasant Or Painted Lady	4

Turbinidae	Phasianella ventricosa	Swollen Pheasant Shell	4
Philydraceae	Philydrella pygmaea	Lesser Butterfly Flowers	4
Syngnathidae	Phyllopteryx taeniolatus	Common Seadragon	4
Scarabaeidae	Phyllotocus ustulatus		4
Labridae	Pictilabrus laticlavius	Senator Wrasse	4
Marsileaceae	Pilularia novae-hollandiae	Austral Pillwort	4
	Plesiastrea versipora	Small Knob Coral	4
Pentatomidae	Poecilometis lineatus		4
Agamidae	Pogona minor	Dwarf Bearded Dragon	4
Polyphysaceae	Polyphysaceae		4
Posidoniaceae	Posidonia angustifolia	Narrow-leaf Tapeweed	4
Pottiaceae	Pottiaceae		4
Orchidaceae	Prasophyllum hians	Yawning Leek Orchid	4
Dennstaedtiaceae	Pteridium esculentum	Austral Bracken	4
Orchidaceae	Pterostylis robusta	Large Striped Greenhood	4
Amaranthaceae	Ptilotus manglesii	Pom Poms	4
Polyporaceae	Pycnoporus		4
Cicadidae	Pyropsalta melete	Red Bandit	4
Racopilaceae	Racopilum cuspidigerum	Carpet Moss	4
Ranunculaceae	Ranunculus colonorum	Common Buttercup	4
Tettigoniidae	Requena		4
Rhipiduridae	Rhipidura (Rhipidura) albiscapa preissi	South-western Grey Fantail	4
Polygonaceae	Rumex crispus	Curled Dock	4
Chenopodiaceae	Salicornia	Samphires	4
Primulaceae	Samolus junceus		4
Pectinidae	Scaeochlamys livida	Scaly Scallop Or Fan-shell	4
Cyperaceae	Schoenus benthamii		4
Cyperaceae	Schoenus		4
Seirococcaceae	Scytothalia		4
Macropodidae	Setonix brachyurus	Quokka	4
Sillaginidae	Sillago maculata	Trumpeter Whiting	4
Asteraceae	Siloxerus multiflorus	Small Wrinklewort	4
Poaceae	Sorghum halepense	Johnson Grass	4
Fabaceae	Sphaerolobium scabriusculum		4
Fabaceae	Sphaerolobium vimineum	Leafless Globe-pea	4
Picrodendraceae	Stachystemon vermicularis		4
Estrildidae	Stagonopleura (Zonaeginthus) oculata	Red-eared Firetail	4
Caryophyllaceae	Stellaria media	Chickweed	4
Brassicaceae	Stenopetalum gracile		4
Stylidiaceae	Stylidium diversifolium	Touch-me-not	4
Elapidae	Suta nigriceps	Mitchell's Short-tailed Snake	4
Proteaceae	Synaphea sp. Pinjarra Plain (A.S.George 17182)		4
Tenebrionidae	TENEBRIONIDAE		4
Chenopodiaceae	Tecticornia halocnemoides	Red Glasswort	4
Teloschistaceae	Teloschistes chrysophthalmus	Golden-eye Lichen	4
Orchidaceae	Thelymitra antennifera	Lemon Sun-orchid	4
Asparagaceae	Thysanotus pseudojunceus		4
Microcanthidae	Tilodon sexfasciatus	Moonlighter	4
Acrididae	Urnisa rugosa		4
	VERTEBRATA		4
Nymphalidae	Vanessa itea	Australian Admiral	4
Fabaceae	Vicia sativa subsp. nigra	Narrow-leaved Vetch	4
Pluteaceae	Volvopluteus		4
Iridaceae	Watsonia knysnana		4
Iridaceae	Watsonia marginata	Bordered Watsonia	4
Iridaceae	Watsonia	Watsonia	4

Coenagrionidae	Xanthagrion erythroneurum	Red & Blue Damsel	4
Cypraeidae	Zoila venusta	Much Desired Cowry	4
Bangiaceae	'Porphyra'		3
	ACCIPITRIFORMES		3
Anthelidae	ANTHELIDAE		3
Fabaceae	Acacia alata var. alata		3
Fabaceae	Acacia alata	Winged Wattle	3
Fabaceae	Acacia browniana	Brown's Wattle	3
Fabaceae	Acacia iteaphylla	Flinders Range Wattle	3
Fabaceae	Acacia preissiana		3
Proteaceae	Adenanthos		3
Aegothelidae	Aegotheles (Aegotheles) cristatus	Australian Owlet-nightjar	3
Tiphiidae	Aeolothynnus minutus		3
Gobiidae	Afurcagobius suppositus	Southwestern Goby	3
	Agaricineae		3
Corixidae	Agraptocorixa macrops	Water Boatman	3
Tiphiidae	Agriomyia		3
Strophariaceae	Agrocybe pediades		3
Scutigeridae	Allothereua maculata	Species Of House Centipede	3
Amaranthaceae	Amaranthus albus	Stiff Tumbleweed	3
Temnopleuridae	Amblypneustes pallidus	Sea Urchin	3
Poaceae	Amphipogon laguroides subsp. laguroides		3
Cerambycidae	Ancita		3
Haemodoraceae	Anigozanthos humilis	Common Catspaw	3
Haemodoraceae	Anigozanthos viridis	Green Kangaroo Paw	3
Laridae	Anous tenuirostris	Lesser Noddy	3
Anthelidae	Anthela		3
Aporometridae	Aporometra occidentalis	Feather Star	3
Araneidae	Araneus talipedatus	Orb-weaver Spider	3
Segestriidae	Ariadna		3
Lycosidae	Artoria	Australian Forest Runners	3
Lycosidae	Artoriopsis expolita	Wolf Spider	3
Myrtaceae	Astartea fascicularis	Recherche Astartea	3
Myrtaceae	Astartea scoparia	Common Astartea	3
Alpheidae	Athanas parvus		3
Atherinidae	Atherinomorus vaigiensis	Common Hardyhead	3
Atherinidae	Atherinosoma elongatum	Elongate Hardyhead	3
Chenopodiaceae	Atriplex isatidea	Coastal Saltbush	3
Parmeliaceae	Austroparmelina pruinata		3
Acanthaceae	Avicennia marina subsp. australasica	Grey Mangrove	3
Desidae	Badumna		3
Proteaceae	Banksia bipinnatifida		3
Pholadidae	Barnea (Barnea) australasiae		3
Dasyatidae	Bathytoshia brevicaudata	Smooth Stingray	3
Muricidae	Bedeva paivae		3
Migidae	Bertmainius tingle	Tingle Pygmy Trapdoor Spider	3
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	3
Rutaceae	Boronia crenulata	Aniseed Boronia	3
Rutaceae	Boronia denticulata	Toothed-leaved Boronia	3
Boryaceae	Borya sphaerocephala	Pincushions	3
Fabaceae	Bossiaea aquifolium subsp. aquifolium		3
Fabaceae	Bossiaea rufa		3
Percichthyidae	Bostockia porosa	Nightfish	3
	Bryophyta		3
Physciaceae	Buellia disciformis		3
Physciaceae	Buellia tetrapla		3

Bullidae	Bulla quoyii		3
	CEPHALOPODA	Cuttlefish	3
Cicadellidae	CICADELLIDAE	Leafhoppers	3
Orchidaceae	Caladenia hirta	Sugar Candy Orchid	3
Orchidaceae	Caladenia huegelii	Grand Spider Orchid	3
Orchidaceae	Caladenia lobata	Butterfly Orchid	3
Orchidaceae	Caladenia nana subsp. nana	Little Pink Fan Orchid	3
Orchidaceae	Caladenia nana	Pink Fan Orchid	3
Orchidaceae	Caladenia pendens subsp. pendens	Pendant Spider Orchid	3
Scolopacidae	Calidris (Calidris) canutus	Red Knot	3
Teloschistaceae	Caloplaca erythrosticta		3
Mantispidae	Campion australasiae		3
Conopidae	Camrasiconops		3
Cannaceae	Canna x generalis	Canna	3
Cyperaceae	Carex divisa	Divided Sedge	3
Buprestidae	Castiarina amabilis		3
Buprestidae	Castiarina phaeopus		3
Curculionidae	Catasarcus spinipennis		3
Cirratulidae	Caulleriella		3
Poaceae	Cenchrus clandestinus	Kikuyu	3
Gentianaceae	Centaurium erythraea	Common Centaury	3
Bothriuridae	Cercophonius sulcatus		3
Cladophoraceae	Chaetomorpha		3
Chamidae	Chama ruderalis		3
Asparagaceae	Chamaexeros serra		3
Chenopodiaceae	Chenopodiaceae	Saltbush	3
Chenopodiaceae	Chenopodium album	Fat Hen	3
Lophocoleaceae	Chiloscyphus semiteres	Common Crestwort	3
Fabaceae	Chorizema rhombeum		3
Asilidae	Chrysopogon		3
Locustellidae	Cincloramphus (Maclennania) mathewsi	Rufous Songlark	3
Cirratulidae	Cirriformia		3
Cladophoraceae	Cladophora valonioides		3
Chordariaceae	Cladosiphon		3
Monocentridae	Cleidopus gloriamaris	Australian Pineapplefish	3
Colomastigidae	Colomastix		3
Haemodoraceae	Conostylis aculeata subsp. preissii		3
Haemodoraceae	Conostylis aurea		3
Naticidae	Conuber conicum	Conical Sand Snail	3
Psathyrellaceae	Coprinellus		3
Reduviidae	Coranus		3
Desidae	Corasoides	Australian Labyrinth Spider	3
Scolopendridae	Cormocephalus aurantiipes	Orange-footed Centipede	3
Corophiidae	Corophium		3
Caryophyllaceae	Corrigiola litoralis	Strapwort	3
Hemerocallidaceae	Corynotheca micrantha	Sand Lily	3
Artamidae	Cracticus		3
Crassulaceae	Crassula colorata	Dense Stonecrop	3
Staphylinidae	Creophilus erythrocephalus	Devil's Coach-horse	3
Scincidae	Ctenotus australis	Western Limestone Ctenotus	3
Agaricaceae	Cyathus stercoreus		3
Orchidaceae	Cyrtostylis robusta	Large Gnat-orchid	3
Salticidae	Cytaea severa		3
Dermestidae	DERMESTIDAE		3
Dolichopodidae	DOLICHOPODIDAE		3
Goodeniaceae	Dampiera trigona	Angled-stem Dampiera	3

Procellariidae	Daption capense	Cape Petrel	3
Myrtaceae	Darwinia whicherensis	Abba Bell	3
Erebidae	Dasypodia selenophora	Granny Moth	3
Fabaceae	Daviesia rhombifolia		3
Pieridae	Delias aganippe	Red-spotted Jezebel	3
Hemerocallidaceae	Dianella revoluta	Blueberry Lily	3
Chrysomelidae	Diaphanops westermanni		3
Convolvulaceae	Dichondra repens	Kidney-weed	3
Dictyotaceae	Dictyota		3
Dinolestidae	Dinolestes lewini	Longfin Pike	3
Buprestidae	Diphucrania patricia		3
Libellulidae	Diplacodes haematodes	Scarlet Percher	3
Scrophulariaceae	Dischisma arenarium	Sand Dichisma	3
Orchidaceae	Diuris maculata	Spotted Doubletail	3
Orchidaceae	Drakaea glyptodon	King-in-his-carriage	3
Droseraceae	Drosera platystigma	Black-eyed Sundew	3
Droseraceae	Drosera sp. Branched styles (S.C.Coffey 193)		3
Platystomatidae	Duomyia iris		3
Elateridae	ELATERIDAE	Click Beetles	3
Tenebrionidae	Ecnolagria aeneoviolacea		3
Maeridae	Elasmopus rapax		3
Cleridae	Eleale angularis		3
Cyperaceae	Eleocharis acuta	Common Spike-sedge	3
Enoplosidae	Enoplosus armatus	Old Wife	3
Eoacmaeidae	Eoacmaea calamus		3
Cacatuidae	Eolophus roseicapilla roseicapilla	Western Galah	3
Tiphiidae	Epactiothynnus		3
Epitoniidae	Epitonium (Hyaloscala) jukesiana		3
Ischyroceridae	Ericthonius pugnax		3
Asteraceae	Erigeron bonariensis	Flaxleaf Fleabane	3
Buprestidae	Ethonion roei		3
Eucalliacidae	Eucalliaxiopsis aequimana		3
Myrtaceae	Eucalyptus camaldulensis	Red Gum	3
Fabaceae	Euchilopsis linearis	Swamp Pea	3
Buprestidae	Euryspilus australis		3
Fabaceae	Fabaceae		3
Falconidae	Falco (Hierofalco) peregrinus	Peregrine Falcon	3
Felidae	Felis catus	Cat	3
Fomitopsidaceae	Fomitopsidaceae		3
Proteaceae	Franklandia triaristata	Lanoline Bush	3
Hepialidae	Fraus megacornis		3
Nectriaceae	Fusarium		3
Geoplanidae	GEOPLANIDAE		3
Grapsidae	GRAPSIDAE		3
Fabaceae	Gastrolobium cuneatum	River Poison	3
Asteraceae	Gazania	Gazania	3
Chrysomelidae	Geloptera tuberculata		3
Geraniaceae	Geranium dissectum	Cut-leaf Geranium	3
Iridaceae	Gladiolus undulatus	Wild Gladiolus	3
Glycymerididae	Glycymeris		3
Apocynaceae	Gomphocarpus fruticosus	Narrow-leaved Cotton Bush	3
Proteaceae	Grevillea bipinnatifida subsp. bipinnatifida		3
Proteaceae	Grevillea manglesioides subsp. manglesioides		3
Proteaceae	Grevillea		3
Haematopodidae	Haematopus fuliginosus	Sooty Oystercatcher	3
Proteaceae	Hakea ceratophylla	Horned Leaf Hakea	3

Proteaceae	Hakea	Needle Bushes	3
Labridae	Halichoeres brownfieldi	Brownfield's Wrasse	3
Polynoidae	Harmothoe		3
Bittacidae	Harpobittacus similis		3
Limnodynastidae	Heleioporus		3
Boraginaceae	Heliotropium europaeum	Common Heliotrope	3
Hydrophilidae	Helochares tenuistriatus	Water Scavenger Beetle	3
Lamiaceae	Hemiphora bartlingii		3
Cerambycidae	Hermerius prionoides		3
Hesperiidae	Hesperilla chrysotricha	Golden-haired Sedge-skipper	3
Cantharidae	Heteromastix		3
Dilleniaceae	Hibbertia aurea		3
Dilleniaceae	Hibbertia subvaginata		3
Sphingidae	Hippotion celerio	Grapevine Hawk Moth	3
Pholcidae	Holocnemus pluchii	Cellar Spider	3
Araneidae	Hortophora		3
Violaceae	Hybanthus floribundus subsp. floribundus	Shrub Violet	3
Violaceae	Hybanthus		3
Scytosiphonaceae	Hydroclathrus clathratus	Brown Algae	3
Hydrometridae	Hydrometra strigosa	Water Measurer Bug	3
Hygrophoraceae	Hygrocybe		3
Colletidae	Hylaeus		3
Asteraceae	Hypochaeris radicata	Cats-ear	3
Hemiramphidae	Hyporhamphus melanochir	Southern Garfish	3
Stratiomyidae	Inopus		3
Formicidae	Iridomyrmex discors	Ant	3
Veneridae	Irus (Notirus) interstriatus	Shining Boring Venerid	3
Ischnochitonidae	Ischnochiton (Heterozona) cariosus		3
Iridaceae	Ixia maculata	Yellow Ixia	3
Iridaceae	Ixia paniculata	Long-tube Ixia	3
Fabaceae	Jacksonia gracillima		3
Fabaceae	Jacksonia lehmannii		3
Corallinaceae	Jania verrucosa		3
Epitoniidae	Janthina janthina	Common Violet Sea Snail	3
Juncaceae	Juncus pallidus	Pale Rush	3
Myrtaceae	Kunzea rostrata		3
Limoniidae	LIMONIIDAE		3
Lymnaeidae	LYMNAEIDAE		3
Lysianassidae	LYSIANASSIDAE		3
Poaceae	Lachnagrostis filiformis	Common Blown-grass	3
Proteaceae	Lambertia multiflora	Many-flowered Honeysuckle	3
Scincidae	Lampropholis guichenoti	Pale-flecked Garden Sunskink	3
Spionidae	Laonice		3
Halictidae	Lasioglossum (Chilalictus) cognatum	Sweat Bee	3
Aulopidae	Latropiscis purpurissatus	Sergeant Baker	3
Lamiaceae	Lavandula stoechas subsp. stoechas	Topped Lavender	3
Polynoidae	Lepidonotus bowerbankii	Scale Worm	3
Cyperaceae	Lepidosperma tenue		3
Restionaceae	Leptocarpus canus	Hoary Twine-rush	3
Restionaceae	Leptocarpus scariosus		3
Grapsidae	Leptograpsus variegatus	Purple Rock Crab	3
Amaryllidaceae	Leucojum aestivum	Snowflake	3
Ericaceae	Leucopogon cordatus		3
Ericaceae	Leucopogon obovatus		3
Limidae	Lima (Lima) nimbifer		3
Limidae	Limatula (Stabilima) strangei	Strange's File Shell	3

Linaceae	Linum trigynum	French Flax	3
Formicidae	Lioponera		3
Scarabaeidae	Liparetrus discipennis		3
Halictidae	Lipotriches		3
Scincidae	Lissolepis luctuosa	Western Mourning Skink	3
Campanulaceae	Lobelia gibbosa	Tall Lobelia	3
Brassicaceae	Lobularia maritima	Sweet Alyssum	3
Poaceae	Lolium multiflorum	Italian Ryegrass	3
Poaceae	Lolium perenne	Perennial Rye-grass	3
Poaceae	Lolium rigidum	Wimmera Ryegrass	3
Asparagaceae	Lomandra whicherensis		3
Trochanteriidae	Longrita insidiosa		3
Pergidae	Lophyrotoma		3
Fabaceae	Lupinus angustifolius	Narrow-leaf Lupin	3
Miridae	MIRIDAE		3
	MOLLUSCA	Molluscs	3
Monacanthidae	MONACANTHIDAE	Leatherjackets	3
Myrmeleontidae	MYRMELEONTIDAE		3
Meliphagidae	Manorina (Myzantha) flavigula	Yellow-throated Miner	3
Capitellidae	Mediomastus		3
Megachilidae	Megachile clypeata	Bee	3
Megachilidae	Megachile mackayensis		3
Myrtaceae	Melaleuca systena	Coastal Honeymyrtle	3
Buprestidae	Melobasis lathami		3
Scarabaeidae	Melolonthinae		3
Tettigoniidae	Metaballus frontalis		3
Monacanthidae	Meuschenia galii	Bluelined Leatherjacket	3
Asteraceae	Millotia myosotidifolia	Broad-leaf Millotia	3
Pectinidae	Mimachlamys asperrima	Doughboy	3
Caryophyllaceae	Moenchia erecta	Erect Chickweed	3
Corophiidae	Monocorophium insidiosum		3
Portulacaceae	Montia australasica	White Purslane	3
Muscidae	Musca domestica	House Fly	3
Mycosphaerellaceae	Mycosphaerella		3
Formicidae	Myrmecia chasei		3
Formicidae	Myrmecia vindex	Bull Ant	3
Mytilidae	Mytilus		3
Nitidulidae	NITIDULIDAE		3
Lycaenidae	Nacaduba biocellata biocellata	Doublespotted Lineblue	3
Lycaenidae	Nacaduba biocellata	Two-spotted Line-blue	3
Majidae	Naxia		3
Gobiidae	Nesogobius		3
Trochidae	Notogibbula lehmanni	Many Coloured Top Shell	3
Teredinidae	Nototeredo edax	Nototeredo Shipworm	3
Triaenonychidae	Nunciella		3
Nymphaeaceae	Nymphaea	Water Lilies	3
Onagraceae	Oenothera	Clockweed	3
Scarabaeidae	Onitis alexis	Bronze Dung Beetle	3
Ophiactidae	Ophiactis tricolor		3
Hesionidae	Ophiodromus		3
Fabaceae	Ornithopus sativus	Neat Bird's-foot	3
	PENTATOMOMORPHA		3
Pergidae	PERGIDAE		3
Physidae	PHYSIDAE		3
	PORIFERA	Sponges	3
Psychidae	PSYCHIDAE	Bagworm Moth	3

Procellariidae	Pachyptila belcheri	Slender-billed Prion	3
Mesodesmatidae	Paphies		3
Hydrophilidae	Paracymus pygmaeus	Water Scavenger Beetle	3
Vespidae	Paralastor		3
Psathyrellaceae	Parasola		3
Dolichopodidae	Parentia		3
Chrysomelidae	Paropsisterna cloelia		3
Chrysomelidae	Paropsisterna nigerrima		3
Mullidae	Parupeneus spilurus	Blacksaddle Goatfish	3
Lottiidae	Patelloida insignis	Maltese Cross Limpet	3
Hypoxidaceae	Pauridia glabella		3
Hypoxidaceae	Pauridia occidentalis var. quadriloba		3
Curculionidae	Pelororhinus crassus	Horse-nosed Weevil	3
Pentacerotidae	Pentaceropsis recurvirostris	Longsnout Boarfish	3
Pentatomidae	Pentatominae		3
Blattidae	Periplaneta americana	American Cockroach	3
Perthiidae	Perthia acutitelson	Amphipod	3
Turbinidae	Phasianella solida		3
Tettigoniidae	Phasmodes ranatriformis		3
Acrididae	Phaulacridium vittatum	Wingless Grasshopper	3
Flabelligeridae	Pherusa		3
Philydraceae	Philydrella drummondii	Greater Butterfly Flowers	3
	Phoma		3
Cerambycidae	Phoracantha semipunctata	Common Eucalypt Longicorn	3
Cicadidae	Physeema quadricincta	Tick-tock	3
Apodanthaceae	Pilostyles hamiltoniorum		3
Apodanthaceae	Pilostyles		3
Thymelaeaceae	Pimelea ciliata subsp. ciliata		3
Thymelaeaceae	Pimelea suaveolens subsp. suaveolens		3
Asteraceae	Pithocarpa pulchella var. melanostigma		3
Ephippidae	Platax teira	Roundface Batfish	3
	Pleiochaeta		3
Pleurotaceae	Pleurotus australis		3
Charadriidae	Pluvialis squatarola	Grey Plover	3
Poaceae	Poaceae	Grasses	3
Sphecidae	Podalonia tydei	Wasp	3
Vespidae	Polistes (Polistella) humilis synoecus		3
Vespidae	Polistes (Polistella) humilis	Common Paper Wasp	3
Spionidae	Polydora		3
Lycidae	Porrostoma		3
Portunidae	Portunus armatus	Blue Swimmer Crab	3
Rallidae	Porzana (Porzana) fluminea	Australian Spotted Crake	3
Posidoniaceae	Posidonia	Tapeweed	3
Cirratulidae	Protocirrineris chrysoderma		3
Chelidae	Pseudemydura umbrina	Western Swamp Turtle	3
Carangidae	Pseudocaranx georgianus	Silver Trevallies	3
Labridae	Pseudolabrus biserialis	Redband Wrasse	3
Procellariidae	Pterodroma (Pterodroma) macroptera	Great-winged Petrel	3
Orchidaceae	Pterostylis ectypha	Thick-sepaled Snail Orchid	3
Orchidaceae	Pterostylis erubescens	Red-sepaled Snail Orchid	3
Orchidaceae	Pterostylis sp. Bloated snail orchid (W.Jackson BJ486)		3
Orchidaceae	Pterostylis turfosa	Bearded Bird Orchid	3
Maeridae	Quadrimaera viridis		3
Ramalinaceae	Ramalina ovalis		3
Gomphaceae	Ramaria		3
Fabaceae	Retama raetam	White Weeping Broom	3

Chenopodiaceae	Rhagodia candolleana		3
Asteraceae	Rhodanthe pyrethrum		3
Euphorbiaceae	Ricinocarpos cyanescens		3
Iridaceae	Romulea rosea var. communis	Onion Grass	3
Poaceae	Rytidosperma setaceum	Small-flower Wallaby-grass	3
Sparassidae	SPARASSIDAE	Huntsman Spiders	3
Syllidae	SYLLIDAE		3
Sabellidae	Sabella spallanzanii	Magnificent Banded Fan Worm	3
Sabellidae	Sabella		3
Santalaceae	Santalaceae	Sandlewood Family	3
Sargassaceae	Sargassaceae		3
Sargassaceae	Scaberia		3
Goodeniaceae	Scaevola anchusifolia	Silky Scaevola	3
Goodeniaceae	Scaevola	Fan-flowers	3
Carabidae	Scaraphites		3
Cyperaceae	Schoenus brevisetis		3
Cyperaceae	Schoenus sublateralis		3
Cyperaceae	Schoenus variicellae		3
Myrtaceae	Scholtzia involucrata	Spiked Scholtzia	3
Monodactylidae	Schuettea woodwardi	Western Pomfred	3
Scombridae	Scomber australasicus	Blue Mackerel	3
Asteraceae	Senecio	Groundsel	3
Sepiidae	Sepia apama	Giant Cuttlefish	3
Carangidae	Seriola hippos	Samsonfishes	3
Rubiaceae	Sherardia arvensis	Field Madder	3
Sillaginidae	Sillaginodes punctatus	King George Whiting	3
Apogonidae	Siphamia cephalotes	Wood's Siphonfish	3
Caryophyllaceae	Spergula arvensis	Corn Spurrey	3
Ericaceae	Sphenotoma gracilis	Swamp Paper Heath	3
Sphecidae	Sphex rugifer		3
Poaceae	Spinifex hirsutus	Rolling Spinifex	3
Squalidae	Squalus megalops	Spikey Dogfish	3
Lamiaceae	Stachys arvensis	Stagger Weed	3
Brassicaceae	Stenopetalum robustum		3
Dytiscidae	Sternopriscus minimus	Diving Beetle	3
Stylidiaceae	Stylidium angustifolium subsp. glaucifolium		3
Stylidiaceae	Stylidium araeophyllum	Stilt Walker	3
Stylidiaceae	Stylidium divaricatum	Daddy-long-legs	3
Stylidiaceae	Stylidium inundatum	Hundreds And Thousands	3
Stylidiaceae	Stylidium petiolare	Horn Triggerplant	3
Stylidiaceae	Stylidium pulchellum	Thumbelina Triggerplant	3
Asteraceae	Symphyotrichum squamatum	Bushy Starwort	3
Proteaceae	Synaphea petiolaris subsp. triloba		3
Proteaceae	Synaphea sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea	3
Buprestidae	Temognatha secularis		3
Tetragnathidae	Tetragnatha demissa		3
Lycaenidae	Theclinesthes miskini miskini	Wattle Blue (australian Subspecies)	3
Orchidaceae	Thelymitra vulgaris	Slender Sun Orchid	3
Polynoidae	Thormora argus	Scale Worm	3
Asparagaceae	Thysanotus gracilis		3
Asparagaceae	Thysanotus pauciflorus		3
Psittacidae	Trichoglossus haematodus	Rainbow Lorikeet	3
Nemestrinidae	Trichophthalma (Trichophthalma) bivittata		3
Phalangeridae	Trichosurus vulpecula	Common Brushtail Possum	3
Gobiidae	Tridentiger trigonocephalus	Trident Goby	3
Fabaceae	Trifolium	Clover	3

Pottiaceae	Triquetrella		3
Iridaceae	Tritonia crocata	Orange Tritonia	3
Pompilidae	Turneromyia		3
Tettigoniidae	Tympanophora insolita		3
Asteraceae	Ursinia anthemoides subsp. anthemoides	Ursinia	3
Lycosidae	Venatrix pullastra		3
Veneridae	Venerupis	Venus Clams	3
Myrtaceae	Verticordia densiflora var. cespitosa		3
Apocynaceae	Vinca major	Blue Periwinkle	3
Iridaceae	Watsonia meriana var. bulbillifera	Bulbil Watsonia	3
Iridaceae	Watsonia meriana	Bugle Lily	3
Colletidae	Xanthesma		3
Tiphiidae	Zaspilothynnus		3
Cleridae	Zenithicola funesta		3
Dictyotaceae	Zonaria turneriana	Brown Algae	3
Acrididae	ACRIDIDAE		2
	ACTINOPTERYGII		2
Aglajidae	AGLAJIDAE		2
	ANIMALIA	Animals	2
Anisolabididae	ANISOLABIDIDAE		2
Aphididae	APHIDIDAE		2
Fabaceae	Acacia browniana var. obscura		2
Fabaceae	Acacia longifolia subsp. longifolia	Sallow Wattle	2
Fabaceae	Acacia longifolia	Sallow Wattle	2
Fabaceae	Acacia myrtifolia	Myrtle Wattle	2
Fabaceae	Acacia paradoxa	Kangaroo Thorn	2
Fabaceae	Acacia pycnantha	Golden Wattle	2
Fabaceae	Acacia saligna subsp. Southern forest (B.R.Maslin & J.E.Reid BRM 9952)		2
Meliphagidae	Acanthagenys rufogularis	Spiny-cheeked Honeyeater	2
Acanthizidae	Acanthiza (Acanthiza) apicalis apicalis	Southern Inland Thornbill	2
Acrididae	Acrida conica	Giant Green Slant-face	2
Culicidae	Aedes (Ochlerotatus) vigilax	Black Bush-mosquito	2
Culicidae	Aedes (Rampamyia) notoscriptus		2
Aegothelidae	Aegotheles (Aegotheles) cristatus cristatus	Mainland Australian Owlet-nightjar	2
	Agaricomycetidae		2
Buprestidae	Agrilus (Agrilus) hypoleucus		2
Buprestidae	Agrilus		2
Hemerocallidaceae	Agrostocrinum scabrum subsp. scabrum		2
Poaceae	Aira cupaniana	Quicksilver Grass	2
Pentatomidae	Alcaeus		2
Casuarinaceae	Allocasuarina thuyoides	Horned Sheoak	2
Casuarinaceae	Allocasuarina		2
Pleosporaceae	Alternaria		2
Potamogetonaceae	Althenia		2
Amaranthaceae	Amaranthaceae	Amaranth	2
Pleuronectidae	Ammotretis elongatus	Elongate Flounder	2
Euphorbiaceae	Amperea simulans		2
Balanidae	Amphibalanus amphitrite		2
Balanidae	Amphibalanus variegatus		2
Anarthriaceae	Anarthria scabra		2
Ericaceae	Andersonia lehmanniana subsp. lehmanniana		2
Ericaceae	Andersonia lehmanniana		2
Erebidae	Anestia		2
Asteraceae	Angianthus drummondii		2
Haemodoraceae	Anigozanthos manglesii var. x angustifolius		2

Haemodoraceae	Anigozanthos viridis subsp. viridis		2
Culicidae	Anopheles (Anopheles) atratipes	Mosquito	2
Solanaceae	Anthocercis		2
	Anthocerotophyta		2
Poaceae	Anthosachne scabra	Wheatgrass	2
Dermestidae	Anthrenus (Nathrenus) verbasci	Varied Carpet Beetle	2
Paradoxosomatidae	Antichiropus variabilis		2
Paradoxosomatidae	Antichiropus		2
Fabaceae	Aotus cordifolia		2
Fabaceae	Aotus intermedia		2
Anthuridae	Apanthura		2
Calliphoridae	Aphyssura		2
Apiaceae	Apium graveolens	Celery	2
Salticidae	Apricia jovialis	Australian Jumping Spider	2
Araneidae	Araneus		2
Argiolestidae	Archiargiolestes pusillus	Little Flatwing	2
Erebidae	Arctiinae		2
Ardeidae	Ardea sumatrana	Great-billed Heron	2
Procellariidae	Ardenna carneipes	Flesh-footed Shearwater	2
Theridiidae	Argyrodes antipodianus	Dew Drop Spider	2
Asparagaceae	Arthropodium	Vanilla Lilies	2
Bonnemaisoniaceae	Asparagopsis taxiformis		2
Asparagaceae	Asparagus plumosus	Ferny Climbing Asparagus Fern	2
Asteraceae	Asteridea		2
Curculionidae	Atrichonotus minimus	Little Fringed Weevil	2
Chenopodiaceae	Atriplex prostrata	Hastate Orache	2
Scyliorhinidae	Aulohalaelurus labiosus	Blackspotted Catshark	2
Ulmaridae	Aurelia aurita		2
Boletaceae	Austroboletus		2
Poaceae	Austrostipa bronweniae		2
Poaceae	Austrostipa jacobsiana		2
Poaceae	Austrostipa pycnostachya		2
Poaceae	Austrostipa	Spear-grasses	2
Libellulidae	Austrothemis nigrescens	Swamp Flat-tail	2
Syllidae	Autolytinae		2
Poaceae	Avellinia festucoides	Avellinia	2
Poaceae	Avena sativa	Oats	2
Salviniaceae	Azolla filiculoides	Pacific Azolla	2
Blattidae	BLATTIDAE		2
Bombyliidae	BOMBYLIIDAE	Bee Flies	2
Braconidae	BRACONIDAE		2
Araneidae	Backobourkia heroine		2
Curculionidae	Bagous (Hydrillaebagous) callosus		2
Balanidae	Balanus		2
Proteaceae	Banksia armata		2
Proteaceae	Banksia menziesii	Firewood Banksia	2
Psittacidae	Barnardius zonarius zonarius	Port Lincoln Parrot	2
Myrtaceae	Beaufortia sparsa	Swamp Bottlebrush	2
Littorinidae	Bembicium		2
Hydrophilidae	Berosus (Berosus) approximans	Water Scavenger Beetle	2
Pittosporaceae	Billardiera laxiflora		2
Bolbitiaceae	Bolbitius titubans		2
Boletaceae	Boletaceae		2
Boletaceae	Boletellus obscurecoccineus		2
Rutaceae	Boronia ramosa subsp. ramosa		2
Botryosphaeriaceae	Botryosphaeria		2

Mytilidae	Brachidontes erosus	Beaked Mussel	2
Brassicaceae	Brassica tournefortii	Wild Turnip	2
Physciaceae	Buellia		2
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	2
Caenidae	CAENIDAE		2
Chaetopteridae	CHAETOPTERIDAE	Parchment Tube Worm	2
Chalcididae	CHALCIDIDAE		2
Chironomidae	CHIRONOMINAE		2
	CIRRIPEDIA		2
Corixidae	CORIXIDAE		2
Cacatuidae	Cacatua (Cacatua) galerita	Sulphur-crested Cockatoo	2
Cacatuidae	Cacatua (Licmetis) tenuirostris	Long-billed Corella	2
Tettigoniidae	Caedicia		2
Brassicaceae	Cakile edentula	American Sea Rocket	2
Orchidaceae	Caladenia denticulata subsp. rubella	Clumped Spider Orchid	2
Orchidaceae	Caladenia ferruginea	Rusty Spider Orchid	2
Orchidaceae	Caladenia filamentosa	Daddy Long-legs	2
Orchidaceae	Caladenia flava subsp. sylvestris	Karri Cowslip Orchid	2
Orchidaceae	Caladenia longicauda subsp. calcigena	Coastal White Spider Orchid	2
Orchidaceae	Caladenia longicauda subsp. clivicola	Hill's White Spider Orchid	2
Orchidaceae	Caladenia uliginosa	Darting Spider Orchid	2
Scolopacidae	Calidris (Ereunetes) ruficollis	Red-necked Stint	2
Plantaginaceae	Callitriche brutia	Water Starwort	2
Cupressaceae	Callitris acuminata		2
Eriococcidae	Callococcus acaciae		2
Eriococcidae	Callococcus		2
Colletidae	Callohesma campbelli		2
Chrysomelidae	Calomela crassicornis		2
Myrtaceae	Calothamnus graniticus		2
Myrtaceae	Calothamnus lateralis var. lateralis		2
Myrtaceae	Calothamnus rupestris	Mouse Ears	2
Myrtaceae	Calothamnus schaueri		2
Myrtaceae	Calytrix leschenaultii	Posy Starflower	2
Mantispidae	Campion tenuistrigus		2
Formicidae	Camponotus rufus	Ant	2
Carditidae	Cardita aviculina		2
Lauraceae	Cassytha micrantha		2
Buprestidae	Castiarina decemguttata		2
Buprestidae	Castiarina picta		2
Buprestidae	Castiarina simulata		2
Buprestidae	Castiarina subcincta		2
Buprestidae	Castiarina		2
Casuarinaceae	Casuarina equisetifolia	Coastal She-oak	2
Casuarinaceae	Casuarina	Oaks	2
Curculionidae	Catasarcus impressipennis	Redlegged Weevil	2
Caulerpaceae	Caulerpa geminata	Green Algae	2
Caulerpaceae	Caulerpa racemosa	Sea Grapes	2
Cyperaceae	Caustis flexuosa	Slender Twist-rush	2
Apiaceae	Centella asiatica	Indian Pennywort	2
Tenebrionidae	Chalcopteroides		2
Asparagaceae	Chamaescilla		2
Cantharidae	Chauliognathus granulatus		2
Cheilodactylidae	Cheilodactylus gibbosus	Magpie Morwong	2
Chenopodiaceae	Chenopodium macrospermum	Red-stem Goosefoot	2
Parastacidae	Cherax preissii		2
Laridae	Chlidonias (Pelodes) hybrida	Whiskered Tern	2

Fabaceae	Chorizema glycinifolium		2
Fabaceae	Chorizema ilicifolium	Holly Flame Pea	2
Fabaceae	Chorizema		2
Laridae	Chroicocephalus novaehollandiae novaehollandiae	Silver Gull	2
Tachinidae	Chrysopasta elegans		2
Asilidae	Chrysopogon albopunctatus		2
Asteraceae	Cichorium intybus	Chicory	2
Sphaeromatidae	Cilicaeopsis		2
Cladoniaceae	Cladonia rigida		2
Ranunculaceae	Clematis linearifolia	Slender Clematis	2
Clubionidae	Clubiona		2
Gobiesocidae	Cochleoceps bicolor	Western Cleaner Clingfish	2
Codiaceae	Codium spongiosum	Green Algae	2
Scarabaeidae	Colpochila		2
Hymenochaetaceae	Coltricia		2
Polygalaceae	Comesperma flavum		2
Bombyliidae	Comptosia gemina		2
Proteaceae	Conospermum capitatum subsp. glabratum		2
Proteaceae	Conospermum capitatum		2
Proteaceae	Conospermum flexuosum subsp. laevigatum		2
Haemodoraceae	Conostylis aculeata subsp. gracilis		2
Haemodoraceae	Conostylis candicans	Grey Cottonhead	2
Psathyrellaceae	Coprinellus micaceus		2
Agaricaceae	Coprinus comatus	Shaggy Mane	2
Rhinotermitidae	Coptotermes acinaciformis raffrayi	Subterranean Termite	2
Poaceae	Cortaderia selloana	Pampas Grass	2
Corvidae	Corvus coronoides perplexus	Western Australian Raven	2
Asteraceae	Cotula australis	Common Cotula	2
Asteraceae	Cotula bipinnata	Ferny Cotula	2
Asteraceae	Cotula cotuloides	Smooth Cotula	2
Phasianidae	Coturnix ypsilophora		2
Formicidae	Crematogaster		2
Rhamnaceae	Cryptandra arbutiflora var. tubulosa	Waxy Cryptandra	2
Coccidae	Cryptes baccatus	Wattle Tick Scale	2
Cryptoplacidae	Cryptoplax striata		2
Scincidae	Ctenotus fallens	West-coast Laterite Ctenotus	2
Cucurbitaceae	Cucurbita maxima	Ironbark Pumpkin	2
Culicidae	Culex (Neoculex) latus		2
Dytiscidae	Cybister godeffroyi	Diving Beetle	2
Dytiscidae	Cybister tripunctatus	Diving Beetle	2
Juncaginaceae	Cycnogeton procerum	Common Water-ribbons	2
Thomisidae	Cymbacha ocellata	Crab Spider	2
Cyperaceae	Cyperus congestus	Dense Flat-sedge	2
Cyperaceae	Cyperus polystachyos	Bunchy Flat-sedge	2
Orchidaceae	Cyrtostylis	Mosquito Orchids	2
Restionaceae	Cytogonidium leptocarpoides		2
Delphinidae	DELPHINIDAE		2
	DEMOSPONGIAE		2
	DIPLOPODA	Millipedes	2
Dytiscidae	DYTISCIDAE		2
Pygidicranidae	Dacnodes shortridgei		2
Nymphalidae	Danaus petilia	Lesser Wanderer	2
Myrtaceae	Darwinia oederoides		2
Myrtaceae	Darwinia vestita	Pom-pom Darwinia	2
Fabaceae	Daviesia nudiflora		2
Roccellaceae	Delisea pulchra		2

Columbellidae	Dentimitrella austrina		2
Columbellidae	Dentimitrella menkeana	Menke's Dove Shell	2
Columbellidae	Dentimitrella semiconvexa	Semiconvexa Dove Shell	2
Restionaceae	Desmocladus virgatus		2
Asparagaceae	Dichopogon preissii	Nodding Chocolate Lily	2
Geometridae	Dichromodes personalis		2
Pentatomidae	Dictyotus roei	Shield Bug	2
Poaceae	Digitaria sanguinalis	Summer Grass	2
Diomedeidae	Diomedea exulans	Wandering Albatross	2
Buprestidae	Diphucrania duodecimmaculata		2
Dermateaceae	Diplocarpon rosae		2
Orchidaceae	Diuris brevis	Short-nosed Donkey Orchid	2
Orchidaceae	Diuris laxiflora	Bee Orchid	2
Tabanidae	Dolichapha gemella		2
Araneidae	Dolophones		2
Thalestridae	Donsiella victoriae		2
Droseraceae	Drosera bulbigena	Midget Sundew	2
Droseraceae	Drosera squamosa		2
Droseraceae	Drosera stelliflora		2
Blattidae	Drymaplaneta semivitta	Gisborne Cockroach	2
Blattidae	Drymaplaneta		2
Chenopodiaceae	Dysphania multifida	Scented Goosefoot	2
	ENSIFERA		2
Ichneumonidae	Echthromorpha intricatoria	Cream Spotted Ichneumon Wasp	2
Lessoniaceae	Ecklonia radiata	Golden Kelp	2
Scincidae	Egernia napoleonis	South-western Crevice-skink	2
Tiphiidae	Eirone		2
Elaeocarpaceae	Elaeocarpaceae		2
Cleridae	Eleale reichei		2
Poaceae	Eleusine indica	Crowsfoot Grass	2
Pseudophyllodromiidae	Ellipsidion		2
Restionaceae	Empodisma gracillimum	Tanglefoot	2
Ichneumonidae	Enicospilus		2
Lasiocampidae	Entometa		2
Poaceae	Eragrostis curvula	African Love-grass	2
Myrtaceae	Eremaea asterocarpa		2
Lycaenidae	Erina acasta	Blotched Blue	2
Geraniaceae	Erodium cicutarium	Common Herons-bill	2
Limidae	Escalima murrayi		2
Monacanthidae	Eubalichthys cyanoura	Bluetail Leatherjacket	2
Myrtaceae	Eucalyptus erythrocorys	Red-capped Gum	2
Myrtaceae	Eucalyptus macrocarpa	Blue Bush	2
Myrtaceae	Eucalyptus wandoo subsp. wandoo	Wandoo	2
Spheniscidae	Eudyptula minor	Little Penguin	2
Labridae	Eupetrichthys angustipes	Snakeskin Wrasse	2
Callithamniaceae	Euptilota		2
Caprimulgidae	Eurostopodus (Eurostopodus) argus	Spotted Nightjar	2
Buprestidae	Euryspilus		2
Stratiomyidae	Exaireta spinigera	Garden Soldier Fly	2
Apidae	Exoneura (Exoneura) angophorae	Reed Bee	2
Gobiidae	Favonigobius lateralis	Southern Longfin Goby	2
Gobiidae	Favonigobius lentiginosus	Eastern Longfin Goby	2
Moraceae	Ficus carica	Edible Fig	2
Fissidentaceae	Fissidens megalotis	Curly Pocket-moss	2
Fissidentaceae	Fissidens tenellus	Tiny Pocket-moss	2
Parmeliaceae	Flavoparmelia haysomii		2

Apiaceae	Foeniculum vulgare	Fennel	2
Physaraceae	Fuligo septica		2
Geometridae	GEOMETRIDAE		2
Gripopterygidae	GRIPOPTERYGIDAE		2
Gryllidae	GRYLLIDAE		2
Magnaporthaceae	Gaeumannomyces avenae		2
Cyperaceae	Gahnia	Saw-sedges	2
Galaxauraceae	Galaxauraceae		2
Chrysomelidae	Galerucini		2
Rubiaceae	Galium divaricatum	Slender Bedstraw	2
Gasteruptiidae	Gasteruption atrinerve		2
Gasteruptiidae	Gasteruption terminale		2
Fabaceae	Gastrolobium bilobum	Heart-leaved Poison	2
Fabaceae	Gastrolobium ebracteolatum		2
Fabaceae	Gastrolobium spinosum	Prickly Poison	2
Asteraceae	Gazania linearis	Gazania	2
Georissidae	Georissus (Neogeorissus) occidentalis		2
Geotriidae	Geotria australis	Pouch Lamprey	2
Geraniaceae	Geranium solanderi	Austral Geranium	2
Iridaceae	Gladiolus caryophyllaceus	Wild Gladiolus	2
Iridaceae	Gladiolus tristis	Evening-flower Gladiolus	2
Colchicaceae	Gloriosa superba	Glory Lily	2
Phrymaceae	Glossostigma diandrum	Glossostigma	2
Poaceae	Glyceria declinata	Manna Grass	2
Scarabaeidae	Glycyphana (Glycyphaniola) stolata		2
Fabaceae	Gompholobium scabrum	Painted Lady	2
Acrididae	Goniaea vocans	Slender Gumleaf Grasshopper	2
Goodeniaceae	Goodenia coerulea		2
Goodeniaceae	Goodenia incana	Hoary Goodenia	2
Gracilariaceae	Gracilaria secundata		2
Chilodontidae	Granata imbricata	Wide-mouthed Trochus	2
Graphidaceae	Graphis		2
Halymeniaceae	Grateloupia		2
Proteaceae	Grevillea pulchella subsp. pulchella		2
Proteaceae	Grevillea rosieri		2
Proteaceae	Grevillea vestita		2
Tiphiidae	Guerinius flaviventris		2
Tiphiidae	Guerinius		2
Muraenidae	Gymnothorax woodwardi	Woodward's Moray	2
Helicidae	HELICIDAE		2
	HETEROPTERA	Reduviids	2
Hymenosomatidae	HYMENOSOMATIDAE		2
Haemodoraceae	Haemodorum paniculatum	Mardja	2
Haemodoraceae	Haemodorum	Bloodroot	2
Proteaceae	Hakea ruscifolia	Candle Hakea	2
Haliotidae	Haliotis roei	Roe's Abalone	2
Alydidae	Hamedius incarnatus		2
Curculionidae	Haplonyx		2
Tenebrionidae	Heleini		2
Asteraceae	Helianthus annuus	Sunflower	2
Asteraceae	Helianthus debilis subsp. cucumerifolius	Cucumberleaf Sunflower	2
Varunidae	Helograpsus haswellianus	Haswell's Shore Crab	2
Salticidae	Helpis minitabunda	Bronze Aussie Jumping Spider	2
Lamiaceae	Hemiandra		2
Myrmeleontidae	Heoclisis fundata	Antlion	2
Myrmeleontidae	Heoclisis		2

Physciaceae	Heterodermia japonica		2
Physciaceae	Heterodermia		2
Heterodontidae	Heterodontus portusjacksoni	Port Jackson Shark	2
Scarabaeidae	Heteronychus arator	African Black Beetle	2
Scarabaeidae	Heteronychus		2
Ichneumonidae	Heteropelma		2
Dolichopodidae	Heteropsilopus brevicornis	Long-legged Fly	2
Polyporaceae	Hexagonia		2
Dilleniaceae	Hibbertia ferruginea		2
Dilleniaceae	Hibbertia perfoliata		2
Dilleniaceae	Hibbertia quadricolor		2
Syngnathidae	Hippocampus		2
Hipponicidae	Hipponix australis		2
Hirundinidae	Hirundo (Hirundo) neoxena carteri	Western Welcome Swallow	2
Poaceae	Holcus lanatus	Yorkshire Fog	2
Asparagaceae	Hyacinthoides non-scripta	English Bluebell	2
Asteraceae	Hyalosperma praecox	Mayweed Sunray	2
Asteraceae	Hyalosperma simplex subsp. simplex		2
Araliaceae	Hydrocotyle scutellifera	Western Shield Pennywort	2
Elapidae	Hydrophis major	Olive-headed Seasnake	2
Elapidae	Hydrophis	Plain Sea Snake	2
Hygrophoraceae	Hygrocybe polychroma		2
Colletidae	Hylaeus (Hylaeorhiza) nubilosus	Plasterer Bee	2
Colletidae	Hylaeus (Planihylaeus) quadriceps	Plasterer Bee	2
Strophariaceae	Hypholoma fasciculare		2
Myrtaceae	Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J.Keighery 16777)		2
Hysteriaceae	Hysterium		2
	ISOPODA		2
Monophlebidae	Icerya		2
Idiopidae	Idiosoma rhaphiduca		2
Convolvulaceae	Ipomoea indica	Purple Morning-glory	2
Formicidae	Iridomyrmex lividus	Blue Meat Ant	2
Mitridae	Isara chalybeia	Steel Mitre	2
Reduviidae	Ischnolestes		2
Isoetaceae	Isoetes drummondii	Plain Quillwort	2
Cyperaceae	Isolepis fluitans	Floating Club-rush	2
Peramelidae	Isoodon fusciventer	Southwestern Brown Bandicoot	2
Proteaceae	Isopogon longifolius		2
Campanulaceae	Isotoma scapigera	Salt Isotome	2
Fabaceae	Isotropis		2
Ardeidae	Ixobrychus flavicollis	Black Bittern	2
Corallinaceae	Jania		2
Juncaceae	Juncus articulatus	Jointed Rush	2
Juncaceae	Juncus kraussii subsp. australiensis	Juncus	2
Juncaceae	Juncus microcephalus	Tiny-headed Rush	2
Juncaceae	Juncus polyanthemus		2
Pentatomidae	Kapunda tepperi		2
Kelliidae	Kellia tumida		2
Kelliidae	Kellia		2
Fabaceae	Kennedia		2
Myrtaceae	Kunzea	Tickbush	2
Latridae	LATRIDAE	Trumpeters	2
Leptoceridae	LEPTOCERIDAE		2
Leptophlebiidae	LEPTOPHLEBIIDAE		2
Miridae	LEUCOPHOROPTERINI		2

Lumbrineridae	LUMBRINERIDAE		2
Hydrophilidae	Laccobius (Hydroxenus) clarus	Water Scavenger Beetle	2
Asparagaceae	Lachenalia aloides		2
Asteraceae	Lactuca serriola	Prickly Lettuce	2
Proteaceae	Lambertia multiflora var. darlingensis		2
Lonchaeidae	Lamprolonchaea brouniana	Metallic-green Tomato Fly	2
Halictidae	Lasioglossum (Chilalictus) ebeneum		2
Halictidae	Lasioglossum (Chilalictus) hapsidum		2
Halictidae	Lasioglossum (Chilalictus) hemichalceum	Sweat Bee	2
Halictidae	Lasioglossum		2
Sepsidae	Lasionemopoda hirsuta	Black Scavenger Fly	2
Fabaceae	Lathyrus tingitanus	Tangier Pea	2
Corophiidae	Laticorophium baconi		2
Fabaceae	Latrobea tenella		2
Platystomatidae	Lenophila nila		2
Eunicidae	Leodice australis	Blood Worm	2
Lamiaceae	Leonotis leonurus	Lion's Ear	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Polynoidae	Lepidonotus glaucus	Scale Worm	2
Cyperaceae	Lepidosperma striatum		2
Restionaceae	Leptocarpus coangustatus		2
Restionaceae	Leptocarpus crebriculmis		2
Restionaceae	Leptocarpus scoparius		2
Restionaceae	Leptocarpus tenax	Slender Twine-rush	2
Erebidae	Leptocneria reducta	Moth	2
Asilidae	Leptogaster		2
Collemataceae	Leptogium corniculatum		2
Santalaceae	Leptomeria ellytes		2
Curculionidae	Leptopius		2
Restionaceae	Lepyrodia hermaphrodita		2
Strophariaceae	Leratiomyces ceres		2
Tiphiidae	Lestricothynnus		2
Acrobolbaceae	Lethocolea		2
Noctuidae	Leucania diatrecta	Dark-barred Wainscot	2
Ericaceae	Leucopogon pendulus		2
Ericaceae	Leucopogon polymorphus		2
Ericaceae	Leucopogon sp. Busselton (D.Cooper 243)		2
Hygrophoraceae	Lichenomphalia chromacea	Yellow Navel	2
Liliaceae	Liliaceae		2
Dytiscidae	Limbodessus inornatus	Diving Beetle	2
Scolopacidae	Limosa lapponica	Bar-tailed Godwit	2
Curculionidae	Listroderes difficilis	Vegetable Weevil	2
Poaceae	Lolium arundinaceum subsp. arundinaceum		2
Poaceae	Lolium	Ryegrass	2
Asparagaceae	Lomandra drummondii		2
Terebellidae	Longicarpus modestus	Spaghetti Worm	2
Caprifoliaceae	Lonicera japonica	Japanese Honeysuckle	2
Lottiidae	Lottia onychitis		2
Restionaceae	Loxocarya cinerea		2
Calliphoridae	Lucilia sericata	Green Blowfly	2
Lumbricidae	Lumbricus terrestris	Twachel	2
Fabaceae	Lupinus luteus	Yellow Lupin	2
	MAMMALIA	Mammals	2
	MARSUPIALIA	Marsupials	2
Megachilidae	MEGACHILIDAE		2
Micropezidae	MICROPEZIDAE	Stilt Flies	2

Cyperaceae	Machaerina rubiginosa	Baumea	2
Fissurellidae	Macroschisma producta	Narrow Slot Limpet	2
Acrididae	Macrotona		2
Mactridae	Mactra (Mactra) australis	Southern Trough Shell	2
Mactridae	Mactra		2
Pittosporaceae	Marianthus granulatus		2
Megachilidae	Megachile (Austrochile) remotula		2
Megachilidae	Megachile (Austrochile) subferox		2
Megachilidae	Megachile (Eutricharaea) macularis	Bee	2
Megachilidae	Megachile (Schizomegachile) monstrosa	Bee	2
Megachilidae	Megachile (Thaumatosoma) duboulaii		2
Megachilidae	Megachile leeuwinensis		2
Myrtaceae	Melaleuca acutifolia		2
Myrtaceae	Melaleuca nesophila	Showy Honey Myrtle	2
Myrtaceae	Melaleuca nodosa	Pricklyleaf Paperbark	2
Syrphidae	Melangyna (Austrosyrphus) collatus	Hover Fly	2
Melitidae	Melita matilda		2
Ziphiidae	Mesoplodon grayi	Gray's Beaked Whale	2
Tettigoniidae	Metaballus litus		2
Conopidae	Microconops similis		2
Hemerobiidae	Micromus tasmaniae	Tasmanian Brown Lacewing	2
Orchidaceae	Microtis orbicularis	Swamp Onion-orchid	2
Actinopodidae	Missulena		2
Miturgidae	Mituliodon tarantulinus	Long-legged Sac Spider	2
Mytilidae	Modiolatus victoriae	Victoria's Horse Mussel	2
Mytilidae	Modiolus areolatus	Southern Horse Mussel	2
Mytilidae	Modiolus	Horse Mussel	2
Tineidae	Monopis icterogastra	Wool Moth	2
Campanulaceae	Monopsis debilis var. depressa		2
Iridaceae	Moraea ochroleuca	Yellow Cape Tulip	2
Scincidae	Morethia obscura	Shrubland Morethia Skink	2
Polygonaceae	Muehlenbeckia adpressa	Climbing Lignum	2
Mytilidae	Musculus (Musculus) nanus	Three Area Mussel	2
Mycenaceae	Mycena		2
Scrophulariaceae	Myoporum caprarioides	Slender Myoporum	2
Haloragaceae	Myriophyllum	Water Milfoil	2
Formicidae	Myrmecia clarki		2
Formicidae	Myrmecia desertorum	Bull Ant	2
Formicidae	Myrmecia ludlowi		2
Formicidae	Myrmecia urens	Baby Bull Ant	2
Myrmeleontidae	Myrmeleon		2
Mytilidae	Mytilus galloprovincialis	Blue Mussel	2
Nemestrinidae	NEMESTRINIDAE		2
Nereididae	NEREIDIDAE	Rag Worm	2
Amaryllidaceae	Narcissus tazetta subsp. italicus	Tazetta	2
Nereididae	Neanthes kerguelensis	Rag Worm	2
Goniasteridae	Nectria macrobrachia	Seastar	2
Trigonidiidae	Nemobiinae		2
Dytiscidae	Neobidessodes mjobergi	Diving Beetle	2
Mycosphaerellaceae	Neopseudocercosporella brassicae		2
Asilidae	Neoscleropogon		2
Sparassidae	Neosparassus calligaster	Huntsman Spider	2
Sparassidae	Neosparassus		2
Araneidae	Nephila edulis	Australian Golden Orb-weaving Spider	2
Gelastocoridae	Nerthra		2
Nicodamidae	Nicodamus mainae		2

Alliaceae	Nothoscordum gracile		2
Cypraeidae	Notocypraea piperita	Peppered Cowry	2
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	2
	OLIGOCHAETA		2
Trochidae	Odontotrochus chlorostomus	Floral Top Shell	2
Onagraceae	Oenothera drummondii subsp. drummondii	Beach Evening Primrose	2
Asteraceae	Olearia paucidentata	Autumn Scrub Daisy	2
Olividae	Oliva australis	Southern Olive	2
Tetraodontidae	Omegophora armilla	Ringed Toadfish	2
Blenniidae	Omobranchus germaini	Germain's Blenny	2
Tiphiidae	Oncorhinothynnus xanthospilus		2
Laridae	Onychoprion fuscatus	Sooty Tern	2
Ophiacanthidae	Ophiacantha clavigera		2
Erebidae	Ophiusa tirhaca	Moth	2
Salticidae	Opisthoncus		2
Orectolobidae	Orectolobus hutchinsi	Western Wobbegong	2
Erebidae	Orgyia athlophora		2
Fabaceae	Ornithopus pinnatus	Slender Serradella	2
Syrphidae	Orthoprosopa		2
Serranidae	Othos dentex	Harlequin Fish	2
Hydrocharitaceae	Ottelia ovalifolia	Swamp Lily	2
Oxalidaceae	Oxalis depressa		2
Oxalidaceae	Oxalis	Wood Sorrel	2
Hepialidae	Oxycanus		2
	PASSERIFORMES	Yellowhammer	2
	PENTATOMOIDEA		2
Blattidae	POLYZOSTERIINAE		2
Pompilidae	POMPILIDAE		2
	PSITTACIFORMES		2
Cerambycidae	Pachydissus		2
Procellariidae	Pachyptila		2
Paguridae	Pagurus sinuatus		2
Limoniidae	Paralimnophila		2
Pontogeneiidae	Paramoera		2
Amorphoscelidae	Paraoxypilus tasmaniensis		2
Poaceae	Parapholis incurva	Curly Ryegrass	2
Sabellidae	Parasabella cf. aulaconota		2
Dolichopodidae	Parentia dispar	Long-legged Fly	2
Pentacerotidae	Paristiopterus gallipavo	Giant Boarfishes	2
Parmeliaceae	Parmotrema		2
Chrysomelidae	Paropsisterna beata		2
Poaceae	Paspalum distichum	Water Couch	2
Apiaceae	Pastinaca sativa	Parsnip	2
Pyronemataceae	Patella		2
Lottiidae	Patelloida alticostata	Tall-ribbed Limpet	2
Iridaceae	Patersonia		2
Hypoxidaceae	Pauridia occidentalis var. occidentalis		2
Hypoxidaceae	Pauridia vaginata var. vaginata	Yellow Star	2
Pergidae	Perga		2
Myrtaceae	Pericalymma spongiocaule		2
Hirundinidae	Petrochelidon (Petrochelidon) ariel	Fairy Martin	2
Phacelocarpaceae	Phacelocarpus		2
	Phaeophyceae		2
Poaceae	Phalaris	Canary Grass	2
Trochidae	Phasianotrochus apicinus	Pointed Kelp Shell	2
Acrididae	Phaulacridium		2

Orchidaceae	Pheladenia deformis	Bluebeard Orchid	2
Oecophoridae	Philobota xanthastis		2
Pholcidae	Pholcus phalangioides	Cellar Spider	2
Loganiaceae	Phyllangium divergens	Wiry Mitrewort	2
Mastigiidae	Phyllorhiza punctata		2
Scarabaeidae	Phyllotocus		2
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	2
Asteraceae	Picris squarrosa	Squat Picris	2
Pilumnidae	Pilumnopeus serratifrons	Smooth-handed Crab	2
Thymelaeaceae	Pimelea longiflora		2
Thymelaeaceae	Pimelea suaveolens	Scented Banjine	2
Sclerodermataceae	Pisolithus		2
Pittosporaceae	Pittosporum undulatum	Sweet Pittosporum	2
Veneridae	Placamen		2
Plagusiidae	Plagusia		2
Grapsidae	Planes		2
Platycephalidae	Platycephalus speculator	Southern Bluespotted Flathead	2
Plocamiaceae	Plocamium		2
Plutellidae	Plutella		2
Poaceae	Poa annua	Annual Meadow-grass	2
Poaceae	Poa porphyroclados		2
Sphecidae	Podalonia tydei suspiciosa	Wasp	2
Asteraceae	Podotheca angustifolia	Sticky Long-heads	2
Pentatomidae	Poecilometis punctiventris		2
Platystomatidae	Pogonortalis doclea	Signal Fly	2
Vespidae	Polistinae		2
Zygaenidae	Pollanisus empyrea		2
Poaceae	Polypogon monspeliensis	Annual Beardgrass	2
	Polyporales		2
Pomatostomidae	Pomatostomus (Morganornis) superciliosus	White-browed Babbler	2
Lasiocampidae	Porela		2
Xylariaceae	Poronia erici		2
Potamogetonaceae	Potamogeton drummondii	Western Pondweed	2
Orchidaceae	Prasophyllum brownii	Christmas Leek Orchid	2
Orchidaceae	Prasophyllum elatum	Tall Leek-orchid	2
Orchidaceae	Prasophyllum ovale	Little Leek Orchid	2
Orchidaceae	Prasophyllum sp. early (G.Brockman GBB 1626)		2
Spionidae	Prionospio		2
Trochidae	Prothalotia pulcherrimus	Beautiful Cantharidus	2
Psathyrellaceae	Psathyrella		2
Asteraceae	Pseudognaphalium luteoalbum	Jersey Cudweed	2
Paralichthyidae	Pseudorhombus jenynsii	Smalltooth Flounder	2
Gelidiaceae	Pterocladiella		2
Procellariidae	Pterodroma mollis	Soft-plumaged Petrel	2
Anthelidae	Pterolocera		2
Orchidaceae	Pterostylis brunneola	Giant Snail Orchid	2
Triglidae	Pterygotrigla polyommata	Latchet	2
Procellariidae	Puffinus (Puffinus) gavia	Fluttering Shearwater	2
Fabaceae	Pultenaea ochreata		2
Parmeliaceae	Punctelia		2
Acrididae	Pycnostictus seriatus		2
Pyralidae	Pyralis farinalis	Meal Moth	2
Brassicaceae	Raphanus raphanistrum	Wild Radish	2
Muridae	Rattus fuscipes	Bush Rat	2
Restionaceae	Restionaceae	Rush	2
Rutaceae	Rhadinothamnus anceps	Blister Bush	2

Dytiscidae	Rhantus suturalis	Diving Beetle	2
Geometridae	Rhinodia		2
Belidae	Rhinotia suturalis	Tailed Weevil	2
Belidae	Rhinotia		2
Rhipiduridae	Rhipidura (Rhipidura) fuliginosa	New Zealand Fantail	2
Ceratobasidiaceae	Rhizoctonia		2
	Rhodophyta		2
Formicidae	Rhytidoponera metallica	Metallic Pony Ants	2
Formicidae	Rhytidoponera violacea		2
Euphorbiaceae	Ricinus communis	Castor Oil Plant	2
Zygophyllaceae	Roepera apiculata	Pointed Twinleaf	2
Iridaceae	Romulea obscura		2
Rosaceae	Rosa rubiginosa	Sweet Briar	2
Rosaceae	Rosa	Wild Rose/briar	2
Russulaceae	Russula clelandii		2
Russulaceae	Russula		2
Tachinidae	Rutilia (Chrysorutilia) chersipho		2
Tachinidae	Rutilia		2
Poaceae	Rytidosperma caespitosum	Common Wallaby-grass	2
Poaceae	Rytidosperma		2
Simuliidae	SIMULIIDAE		2
Sphecidae	SPHECIDAE	Mud-daubers	2
Spheniscidae	SPHENISCIDAE	Adelie Penguin	2
Staphylinidae	STAPHYLINIDAE		2
Chenopodiaceae	Salicornia blackiana	Thick-head Samphire	2
Carabidae	Sarticus (Sarticus) iriditinctus		2
Carabidae	Sarticus (Sarticus) ischna		2
Sphecidae	Sceliphron laetum	Common Mud Daubler	2
Gentianaceae	Schenkia australis	Spike Centaury	2
Cyperaceae	Schoenus asperocarpus	Poison Sedge	2
Cyperaceae	Schoenus breviculmis	Matted Bog-rush	2
Cyperaceae	Schoenus discifer	Tiny Bog-rush	2
Cyperaceae	Schoenus laevigatus	Short-leaf Bog-sedge	2
Cyperaceae	Schoenus subflavus	Yellow Bog-rush	2
Sclerodermataceae	Scleroderma citrinum		2
Sclerodermataceae	Scleroderma polyrhizum		2
Monacanthidae	Scobinichthys granulatus	Rough Leatherjacket	2
Scolopendridae	Scolopendra laeta		2
Orbiniidae	Scoloplos simplex		2
Patellidae	Scutellastra peronii	Peron's Limpet	2
Sebidae	Seba		2
Sematophyllaceae	Sematophyllum homomallum	Bronze Signal-moss	2
Sepiidae	Sepia novaehollandiae	Cuttlefish	2
Sillaginidae	Sillago ciliata	Sand Whiting	2
Sillaginidae	Sillago		2
Elapidae	Simoselaps bertholdi	Jan's Banded Snake	2
Elapidae	Simoselaps		2
Flatidae	Siphanta acuta	Green Planthopper	2
Flatidae	Siphanta		2
Iridaceae	Sisyrinchium rosulatum	Scourweed	2
Araneidae	Socca pustulosa		2
Solemyidae	Solemya (Solemyarina) velesiana	Little Solemya	2
Fabaceae	Sphaerolobium drummondii	Globe Pea	2
Fabaceae	Sphaerolobium macranthum		2
Fabaceae	Sphaerolobium		2
Sphecidae	Sphex		2

Zygnemataceae	Spirogyra		2
Restionaceae	Sporadanthus strictus	Erect Scale Rush	2
Sporochnaceae	Sporochnus		2
Cicadellidae	Stenocotis depressa	Black Flat-head Leafhopper	2
Poaceae	Stenotaphrum secundatum	Buffalo Grass	2
Thomisidae	Stephanopis		2
Anatidae	Stictonetta naevosa	Freckled Duck	2
Syngnathidae	Stigmatopora argus	Spotted Pipefish	2
Maluridae	Stipiturus malachurus westernensis	West Coast Southern Emu-wren	2
Stylidiaceae	Stylidium androsaceum	Book Triggerplant	2
Stylidiaceae	Stylidium crassifolium	Thick-leaved Triggerplant	2
Stylidiaceae	Stylidium dichotomum	Pins And Needles	2
Stylidiaceae	Stylidium ecorne	Foot Triggerplant	2
Stylidiaceae	Stylidium hesperium	Western Reed Triggerplant	2
Stylidiaceae	Stylidium violaceum	Violet Triggerplant	2
Ericaceae	Styphelia	Styphelia	2
Chenopodiaceae	Suaeda		2
Succineidae	Succinea (Succinea) australis	Striate Ambersnail	2
Suidae	Sus scrofa	Pig	2
Morabidae	Swanea laticornis		2
Syllidae	Syllis		2
Tenebrionidae	Sympetes bremei		2
Tenebrionidae	Sympetes subrugosus		2
Proteaceae	Synaphea spinulosa		2
Synchytriaceae	Synchytrium		2
Pottiaceae	Syntrichia		2
Myrtaceae	Syzygium sp. (Bartle Frere)		2
Chironomidae	TANYPODINAE		2
Terebellidae	TEREBELLIDAE	Spaghetti Worm, Spaghetti Mouth Worm	2
Tettigoniidae	TETTIGONIIDAE		2
Thomisidae	THOMISIDAE	Crab Spiders	2
Triaenonychidae	TRIAENONYCHIDAE		2
Triphoridae	TRIPHORIDAE		2
Estrildidae	Taeniopygia guttata	Zebra Finch	2
Lycosidae	Tasmanicosa leuckartii	Leuckart’s Wolf Spider, Hay Spider	2
Myrtaceae	Taxandria parviceps	Myrtle	2
Chenopodiaceae	Tecticornia	Samphires	2
Tellinidae	Tellinota imbellis		2
Teredinidae	Teredo furcifera		2
	Termitoidae	White Ants	2
Tethyidae	Tethya		2
Elaeocarpaceae	Tetratheca	Milkmaids	2
Diomedeidae	Thalassarche chlororhynchos	Atlantic Yellow-nosed Albatross	2
Diomedeidae	Thalassarche chrysostoma	Grey-headed Albatross	2
Diomedeidae	Thalassarche melanophris	Black-browed Albatross	2
Cymodoceaceae	Thalassodendron pachyrhizum		2
Thaumastocoridae	Thaumastocoris nadeli		2
Orchidaceae	Thelymitra fuscolutea	Chestnut Sun Orchid	2
Orchidaceae	Thelymitra variegata	Queen Of Sheba	2
Orchidaceae	Thelymitra villosa	Custard Orchid	2
Pentatomidae	Theseus modestus scutellatus	Shield Bug	2
Malvaceae	Thomasia macrocalyx		2
Thuidiaceae	Thuidiopsis sparsa	Weft Moss	2
Tiphiidae	Thynnus pulchralis		2
Asparagaceae	Thysanotus arbuscula		2
Dytiscidae	Tiporus giuliani	Diving Beetle	2

Tiphiidae	Tmesothynnus zelebori		2
Tetraodontidae	Torquigener pleurogramma	Weeping Toadfish	2
Pottiaceae	Tortula muralis	Common Wall-moss	2
Pottiaceae	Tortula		2
Trachichthyidae	Trachichthys australis	Southern Roughy	2
Carangidae	Trachurus novaezelandiae	Yellowtail Scad	2
Chrysomelidae	Trachymela		2
Libellulidae	Tramea stenoloba	Narrow-lobed Glider	2
Elaeocarpaceae	Tremandra diffusa		2
Haemodoraceae	Tribonanthes		2
Pteromalidae	Trichilogaster		2
Trichiuridae	Trichiurus lepturus	Largehead Hairtail	2
Cyperaceae	Tricostularia neesii	Nees’ Tricostularia	2
Fabaceae	Trifolium fragiferum var. fragiferum	Strawberry Clover	2
Fabaceae	Trifolium glomeratum	Cluster Clover	2
Fabaceae	Trifolium hirtum	Rose Clover	2
Fabaceae	Trifolium ligusticum	Ligurian Clover	2
Juncaginaceae	Triglochin striata	Streaked Arrowgrass	2
Juncaginaceae	Triglochin trichophora	Torpedo Arrowgrass	2
Scolopacidae	Tringa (Glottis) nebularia	Common Greenshank	2
Tubiferaceae	Tubifera ferruginosa		2
Dendrophylliidae	Turbinaria bifrons		2
Delphinidae	Tursiops truncatus	Bottlenose Dolphin	2
Delphinidae	Tursiops		2
Typhaceae	Typha orientalis	Bullrush	2
Typhaceae	Typha	Cumbungi	2
Urolophidae	Urolophus paucimaculatus	Sparsely-spotted Stingaree	2
Pucciniaceae	Uromyces rumicis		2
Pucciniaceae	Uromyces		2
Pileolariaceae	Uromycladium		2
Lentibulariaceae	Utricularia menziesii	Redcoats	2
Veliidae	VELIIDAE		2
Varanidae	Varanus gouldii	Gould's Goanna	2
Varanidae	Varanus tristis	Black-headed Monitor	2
Veneridae	Venerupis (Paphirus) anomala	Little Bean Tapes	2
Myrtaceae	Verticordia drummondii	Drummond's Featherflower	2
Rhodomelaceae	Vidalia		2
Violaceae	Viola odorata	Common Violet	2
Pluteaceae	Volvariella speciosa		2
Pteriidae	Vulsella ovata	Southern Sponge Finger	2
Iridaceae	Watsonia borbonica	Rosy Watsonia	2
Wrangeliaceae	Wrangeliaceae		2
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. brunonis	Grasstree	2
Apiaceae	Xanthosia atkinsoniana		2
Aoridae	Xenocheira fasciata		2
Mytilidae	Xenostrobus pulex	Little Black Horse Mussel	2
Scolopacidae	Xenus cinereus	Terek Sandpiper	2
Tiphiidae	Zaspilothynnus vestitus		2
Batillariidae	Zeacumantus plumbeus	Species Of Gastropod	2
Cypraeidae	Zoila rosselli	Rossell's Cowry	2
Blattidae	Zonioploca		2
Thomisidae	Zygometis xanthogaster	Crab Spider	2
Actiniidae	ACTINIIDAE		1
Actinopodidae	ACTINOPODIDAE	Mouse Spiders	1
Alpheidae	ALPHEIDAE		1
	AMPHIBIA	Frogs	1

	AMPHIPODA		1
Notonectidae	ANISOPINAE		1
	ANISOPTERA		1
	ANNELIDA	Segmented Worms	1
Anthelidae	ANTHELINAE		1
	ANTHOZOA	Sea Anemones	1
Aradidae	ARADIDAE		1
	ARANEOMORPHAE		1
	AUCHENORRHYNCHA		1
Physalopteridae	Abbreviata antarctica		1
Fabaceae	Acacia bidentata		1
Fabaceae	Acacia crispula		1
Fabaceae	Acacia drummondii subsp. affinis		1
Fabaceae	Acacia drummondii subsp. elegans		1
Fabaceae	Acacia drummondii	Drummond's Wattle	1
Fabaceae	Acacia mearnsii	Black Wattle	1
Fabaceae	Acacia microbotrya	Manna Wattle	1
Fabaceae	Acacia pycnocephala		1
Fabaceae	Acacia sessilis		1
Monacanthidae	Acanthaluteres vittiger	Toothbrush Leatherjacket	1
Asparagaceae	Acanthocarpus		1
Arcidae	Acar squamosa		1
Gobiidae	Acentrogobius		1
Curculionidae	Acherres globicollis		1
Acholeplasmataceae	Acholeplasmataceae		1
Araneidae	Acroaspis olorina		1
Sargassaceae	Acrocarpia		1
Acrocephalidae	Acrocephalus (Acrocephalus) australis gouldi	Kimberley Reed-warbler	1
Acrocephalidae	Acrocephalus stentoreus	Clamorous Reed-warbler	1
Anthidae	Actaea calculosa	Facetted Crab	1
Anthidae	Actaea		1
Myrtaceae	Actinodium cunninghamii	Swamp Daisy	1
Apiaceae	Actinotus leucocephalus	Flannel Flower	1
Pilumnidae	Actumnus setifer	Short-haired Crab	1
Erebidae	Acyphas		1
Tenebrionidae	Adelium brevicorne	Ground Beetle Sp 1	1
Tenebrionidae	Adelium scytalicum		1
Tenebrionidae	Adelium violaceum		1
Tenebrionidae	Adelium		1
Loganiaceae	Adelphacme minima		1
Pteridaceae	Adiantum aethiopicum	Common Maidenhair	1
Euphorbiaceae	Adriana quadripartita	Rare Bitter-bush	1
Culicidae	Aedes (Dobrotworskyius) alboannulatus	Mosquito	1
Culicidae	Aedes (Finlaya)		1
Culicidae	Aedes (Ochlerotatus) purpureifemur		1
Curculionidae	Aedriodes fastigiatus		1
Hepialidae	Aenetus dulcis		1
Hepialidae	Aenetus		1
Tiphiidae	Aeolothynnus penetratus		1
Tiphiidae	Aeolothynnus vicarius		1
Tiphiidae	Aeolothynnus		1
Pteromalidae	Aeschylia picta		1
Pataecidae	Aetapcus maculatus	Warty Prowfish	1
Violaceae	Afrohybanthus enneaspermus	Ladys Slipper	1
Agaricaceae	Agaricaceae		1
Asparagaceae	Agave americana	Century Plant	1

Asparagaceae	Agave	Agave	1
Chrysomelidae	Agetinus juvencus		1
Pentatomidae	Agonoscelis rutila	Horehound Bug	1
Corixidae	Agraptocorixa eurynome	Water Boatman	1
Corixidae	Agraptocorixa parvipunctata	Water Boatman	1
Buprestidae	Agrilus (Agrilus) kangaroo		1
Buprestidae	Agrilus (Agrilus) koala		1
Coreidae	Agriopocoris		1
Strophariaceae	Agrocybe		1
Noctuidae	Agrotis		1
Acrididae	Aiolopus thalassinus		1
Poaceae	Aira elegantissima	Delicate Hair-grass	1
Paradoxosomatidae	Akamptogonus novarae		1
Gobiesocidae	Alabes springeri		1
Asparagaceae	Albuca bracteata	Pregnant Onion	1
Aequoreidae	Aldersladia		1
Curculionidae	Alexirhea aurita		1
Antennariidae	Allenichthys glauerti	Glauert's Anglerfish	1
Alliaceae	Allium triquetrum	Angled Onion	1
Casuarinaceae	Allocasuarina acutivalvis subsp. acutivalvis		1
Casuarinaceae	Allocasuarina ramosissima		1
Alpheidae	Alpheus parasocialis		1
Alpheidae	Alpheus richardsoni	Shrimps	1
Amaranthaceae	Alternanthera nodiflora	Common Joyweed	1
Amaranthaceae	Alternanthera	Chaff Flower	1
Olividae	Amalda lineata		1
Amanitaceae	Amanita ananiceps		1
Amanitaceae	Amanita farinacea	Australian Flour Lepidella	1
Amanitaceae	Amanitaceae		1
Amaranthaceae	Amaranthus blitum		1
Amaranthaceae	Amaranthus powellii	Powell's Amaranth	1
Amaryllididae	Amaryllis		1
Fissurellidae	Amblychilepas nigrita	Black Keyhole Limpet	1
Ixodidae	Amblyomma triguttatum		1
Formicidae	Amblyopone		1
Temnopleuridae	Amblypneustes leucoglobus	Sea Urchin	1
Geometridae	Amelora pachyspila		1
Geometridae	Amelora pentheres		1
Calliphoridae	Amenia		1
Chrysomelidae	Ametalla spinolae		1
Termitidae	Amitermes conformis		1
Termitidae	Amitermes obeuntis		1
Volutidae	Amoria damonii	Damon's Volute	1
Volutidae	Amoria grayi	Gray's Volute	1
Ampeliscidae	Ampelisca euroa	Amphipod	1
Balanidae	Amphibalanus cirratus		1
Balanidae	Amphibalanus		1
Poaceae	Amphibromus	Swamp Wallaby Grass	1
Limoniidae	Amphineurus		1
Amphiuridae	Amphipholis squamata	Brooding Brittle Star	1
Poaceae	Amphipogon debilis		1
Terebellidae	Amphitrite		1
Ampithoidae	Ampithoe		1
Cicadellidae	Anacornutipo lignosa	Leafhopper	1
Anarthriaceae	Anarthria laevis		1
Anatidae	Anas (Anas) superciliosa superciliosa		1

Cerambycidae	Ancita didyma		1
Cerambycidae	Ancita marginicollis		1
Ericaceae	Andersonia aristata	Rice Flower	1
Ericaceae	Andersonia micrantha		1
Ericaceae	Andersonia		1
Erebidae	Anestia ombrophanes	Moth	1
Turbinidae	Angaria tyria	The Tyrian-purple Delphinula	1
Haemodoraceae	Anigozanthos bicolor	Little Kangaroo Paw	1
Haemodoraceae	Anigozanthos flavidus	Tall Kangaroo Paw	1
Typhlopidae	Anilios pinguis	Rotund Blind Snake	1
Cymothoidae	Anilocra		1
Anisakidae	Anisakis		1
Notonectidae	Anisops hyperion	Backswimmer	1
Notonectidae	Anisops thienemanni	Backswimmer	1
Notonectidae	Anisops		1
Charopidae	Annoselix dolosa		1
Ichneumonidae	Anomalon		1
Aracanidae	Anoplocapros amygdaloides	Western Smooth Boxfish	1
Scarabaeidae	Anoplostethus opalinus		1
Wrangeliaceae	Anotrichium		1
Laridae	Anous stolidus	Common Noddy	1
Anthicidae	Anthicus intricatus		1
Solanaceae	Anthocercis ilicifolia subsp. ilicifolia		1
Meliphagidae	Anthochaera (Anellobia) chrysoptera	Little Wattlebird	1
Anthomyiidae	Anthomyia punctipennis	Fly	1
Dermestidae	Anthrenus (Anthrenus) scrophulariae scrophulariae		1
Apiaceae	Anthriscus caucalis	Burr Chervil	1
Paradoxosomatidae	Antichiropus nanus		1
Dytiscidae	Antiporus femoralis	Diving Beetle	1
Hipponicidae	Antisabia foliacea		1
Stratiomyidae	Antissella		1
Anystidae	Anystis		1
Diaspididae	Aonidia banksiae		1
Fabaceae	Aotus procumbens		1
Fabaceae	Aotus		1
Centrolepidaceae	Aphelia drummondii		1
Apidae	Apini		1
Apioceridae	Apiocera		1
Brentidae	Apion comosum		1
Aplodactylidae	Aplodactylus westralis	Western Seacarp	1
Scarabaeidae	Aplopsis lineoligera		1
Aplysiidae	Aplysia argus		1
Corophiidae	Apocorophium acutum		1
Aporometridae	Aporometra paedophora		1
Pygopodidae	Aprasia repens	Sand-plain Worm-lizard	1
Elateridae	Arachnodima burrelli		1
Apocynaceae	Araujia sericifera	White Bladder-flower	1
Arcidae	Arca		1
Argiolestidae	Archiargiolestes parvulus	Midget Flatwing	1
Arcyriaceae	Arcyria denudata		1
Procellariidae	Ardenna pacifica	Wedge-tailed Shearwater	1
Erebidae	Ardices		1
Arenicolidae	Arenicola caroledna		1
Arenicolidae	Arenicola cristata		1
Gobiidae	Arenigobius bifrenatus	Bridled Goby	1
Argasidae	Argas persicus		1

Araneidae	Argiope trifasciata	Orb-weaver Spider	1
Miturgidae	Argoctenus igneus		1
Miturgidae	Argoctenus		1
Geometridae	Arhodia lasiocamparia	Geometer Moth	1
Tiphiidae	Ariphron		1
Poaceae	Aristida holathera var. holathera	Tall Kerosene Grass	1
Armadillidiidae	Armadillidium vulgare		1
Physalacriaceae	Armillaria luteobubalina		1
Physalacriaceae	Armillaria		1
Arripidae	Arripis georgianus	Australian Herring	1
Artamidae	Artamus (Angroyan) cinereus cinereus	South-western Black-faced Woodswallow	1
Artamidae	Artamus (Campbellornis) personatus	Masked Woodswallow	1
Asteraceae	Artemisia verlotiorum	Chinese Wormwood	1
Corallinaceae	Arthrocardia wardii		1
Asparagaceae	Arthropodium fimbriatum	Nodding Chocolate Lily	1
Lycosidae	Artoria linnaei		1
Tateidae	Ascorhis occidua		1
Deinopidae	Asianopis unicolor		1
Deinopidae	Asianopis		1
Asparagaceae	Asparagaceae	Fringed Lily	1
Asparagaceae	Asparagus declinatus	Bridal Veil	1
Muricidae	Aspella		1
Aspleniaceae	Asplenium aethiopicum	Shredded Spleenwort	1
Myrtaceae	Astartea pulchella		1
Myrtaceae	Astartea zephyra		1
	Asterales		1
Buprestidae	Astraeus (Astraeus) oberthuri		1
Turbinidae	Astralium squamiferum	Spiny Star	1
Scyliorhinidae	Asymbolus submaculatus	Variegated Catshark	1
Lymexylidae	Atractocerus		1
Cicadidae	Atrapsalta encaustica	Black Squeaker	1
Chenopodiaceae	Atriplex hortensis	Garden Orache	1
Chenopodiaceae	Atriplex hypoleuca		1
Chenopodiaceae	Atriplex nummularia	Old-man Saltbush	1
Chenopodiaceae	Atriplex paludosa	Marsh Saltbush	1
Chenopodiaceae	Atriplex	Orache	1
Haminoeidae	Atys		1
Conopidae	Australoconops unicinctus	Kelp Fly	1
Nereididae	Australonereis		1
Trochidae	Austrocochlea rudis	The Roughened Austrocochlea	1
Cypraeidae	Austrocypraea reevei	Reeve's Cowry	1
Gomphidae	Austrogomphus (Austrogomphus) collaris	Western Inland Hunter	1
Megascolecidae	Austrohoplochaetella whistleri		1
Acrididae	Austroicetes cruciata	Small Plague Grasshopper	1
Acrididae	Austroicetes		1
Lestidae	Austrolestes		1
Balanidae	Austromegabalanus nigrescens	Giant Black Barnacle	1
Parmeliaceae	Austroparmelina chlorolecanorica		1
Serpulaceae	Austropaxillus		1
Poaceae	Austrostipa hemipogon	Half-bearded Spear-grass	1
Poaceae	Austrostipa mollis	Soft Speargrass	1
Poaceae	Austrostipa scabra subsp. scabra	Rough Spear-grass	1
Succineidae	Austrosuccinea		1
Synthemistidae	Austrosynthemis cyanitincta	Turquoise Tigertail	1
Poaceae	Avena	Oat	1
Salviniaceae	Azolla pinnata	Ferny Azolla	1

Baetidae	BAETIDAE		1
Balanidae	BALANIDAE		1
Bovidae	BOVIDAE		1
Iridaceae	Babiana stricta	Baboon-flower	1
Iridaceae	Babiana		1
Desidae	Badumna longinqua	Grey House Spider	1
Myrtaceae	Baeckea		1
Colchicaceae	Baeometra uniflora	Baeometra	1
Balaenopteridae	Balaenoptera acutorostrata	Dwarf Minke Whale	1
Poaceae	Bambusa	Unidentified Bamboo	1
Proteaceae	Banksia dallanneyi var. dallanneyi		1
Proteaceae	Banksia prionotes	Acorn Banksia	1
Proteaceae	Banksia sphaerocarpa var. sphaerocarpa	Round-fruited Banksia	1
Proteaceae	Banksia sphaerocarpa	Fox Banksia	1
Proteaceae	Banksia verticillata	Albany Banksia	1
Psittacidae	Barnardius		1
Lucinidae	Bathycorbis despecta		1
	Batrachochytrium dendrobatidis	Chytrid Fungus	1
Agaricaceae	Battarrea stevenii		1
Littorinidae	Bembicium auratum	Gold-mouthed Conniwink	1
Crabronidae	Bembix furcata	Wasp	1
Crabronidae	Bembix leeuwinensis		1
Crabronidae	Bembix mundurra		1
Asteraceae	Berkheya rigida	African Thistle	1
Hydrophilidae	Berosus (Berosus) pulchellus	Water Scavenger Beetle	1
Hydrophilidae	Berosus (Enoplurus) australiae	Water Scavenger Beetle	1
Bibionidae	Bibio imitator	Garden Maggot	1
Pittosporaceae	Billardiera fraseri	Elegant Pronaya	1
Pittosporaceae	Billardiera heterophylla	Bluebell Creeper	1
Cypraeidae	Bistolida hirundo	Swallow Cowry	1
Cleridae	Blackburniella intricata		1
Teloschistaceae	Blastenia ferruginea		1
Geometridae	Boarmiini	Geometer Moth	1
Trigonidiidae	Bobilla		1
Bolbitiaceae	Bolbitius reticulatus		1
Bolboceratidae	Bolborhachium bainbridgei		1
Cyperaceae	Bolboschoenus		1
	Boletales		1
Boletaceae	Boletellus ananiceps		1
Rutaceae	Boronia cymosa	Granite Boronia	1
Rutaceae	Boronia megastigma	Scented Boronia	1
Rutaceae	Boronia molloyae	Tall Boronia	1
Rutaceae	Boronia ramosa subsp. anethifolia		1
Rutaceae	Boronia ramosa		1
Rutaceae	Boronia tetragona		1
Boryaceae	Borya nitida	Pincushions	1
Boryaceae	Borya		1
Fabaceae	Bossiaea linophylla	Narrow-leaved Bossiaea	1
Fabaceae	Bossiaea		1
Ardeidae	Botaurus poiciloptilus	Australasian Bittern	1
Bothriembryontidae	Bothriembryon (Bothriembryon) bulla		1
Monacanthidae	Brachaluteres jacksonianus	Southern Pygmy Leatherjacket	1
Mytilidae	Brachidontes sculptus		1
Mytilidae	Brachidontes	Ribbed Mussel	1
Malvaceae	Brachychiton populneus	Kurrajong	1
Asteraceae	Brachyscome		1

Syllidae	Branchiosyllis cirropunctata		1
Brassicaceae	Brassica x juncea	Indian Mustard	1
Brassicaceae	Brassica x napus	Rape	1
Cicadellidae	Brunotartessus fulvus	Leafhopper	1
Bryaceae	Bryum		1
Ardeidae	Bubulcus		1
Asphodelaceae	Bulbine semibarbata	Leek Lily	1
Colchicaceae	Burchardia bairdiae		1
Caligidae	CALIGIDAE		1
Callianassidae	CALLIANASSIDAE		1
	CALYPTRATAE		1
Caprellidae	CAPRELLIDAE		1
Cassidae	CASSIDAE		1
Cerambycidae	CERAMBYCINAE	Powderkeg Longicorn	1
	CESTODA		1
	CHALCIDOIDEA		1
Charopidae	CHAROPIDAE		1
Chelidae	CHELIDAE		1
Chyromyidae	CHYROMYIDAE		1
	CICADOMORPHA		1
Cleridae	CLERIDAE		1
	CLUPEIFORMES		1
	CNIDARIA	Jellyfish	1
	CORACIIFORMES		1
Coreidae	COREIDAE		1
Cossidae	COSSIDAE		1
Crambidae	CRAMBIDAE		1
Crambidae	CRAMBINAE		1
Culicidae	CULICIDAE		1
	CURCULIONOIDEA	Weevil	1
	CYCLORRHAPHA		1
Gadilidae	Cadulus occiduus		1
Geoplanidae	Caenoplana coerulea		1
Brassicaceae	Cakile maritima subsp. maritima	Sea Rocket	1
Orchidaceae	Caladenia barbarossa	Dragon Orchid	1
Orchidaceae	Caladenia bicalliata	Spider Orchid	1
Orchidaceae	Caladenia cairnsiana	Zebra Orchid	1
Orchidaceae	Caladenia longiclavata	Clubbed Spider Orchid	1
Orchidaceae	Caladenia magniclavata	Big Clubbed Spider Orchid	1
Orchidaceae	Caladenia nana subsp. unita	Pink Fan Orchid	1
Orchidaceae	Caladenia plicata	Crab-lipped Spider Orchid	1
Orchidaceae	Caladenia splendens	Splendid Spider Orchid	1
Portulacaceae	Calandrinia brevipedata	Short-stalked Purslane	1
Portulacaceae	Calandrinia corrigioloides	Strap Purslane	1
Portulacaceae	Calandrinia polyandra	Parakeelya	1
Portulacaceae	Calandrinia	Parakeelya	1
Orchidaceae	Caleana brockmanii		1
Orchidaceae	Caleana hortiorum		1
Dasypogonaceae	Calectasia cyanea	Blue Tinsel Lily	1
Caliciaceae	Calicium glaucellum		1
Caliciaceae	Calicium lenticulare		1
Scolopacidae	Calidris (Erolia) acuminata	Sharp-tailed Sandpiper	1
Scolopacidae	Calidris (Erolia) ferruginea	Curlew Sandpiper	1
Calliphoridae	Calliphora		1
Callithamniaceae	Callithamnion		1
Cupressaceae	Callitris	Cypress-pine	1

Dacrymycetaceae	Calocera sinensis		1
Dacrymycetaceae	Calocera		1
Chrysomelidae	Calomela curtisi	Leaf Beetle	1
Teloschistaceae	Caloplaca dahlii		1
Teloschistaceae	Caloplaca elixii		1
Teloschistaceae	Caloplaca kaernefeltii		1
Carabidae	Calosoma (Australodrepa) schayeri	Green Carab Beetle	1
Myrtaceae	Calytrix tetragona	Grampians Fringe-myrtle	1
Myrtaceae	Calytrix	Fringe Myrtle	1
Mantispidae	Campion		1
Formicidae	Camponotus lownei	Sugar Ant	1
Ichneumonidae	Campoplex		1
Bignoniaceae	Campsis radicans		1
Candelariaceae	Candelaria concolor		1
Candelariaceae	Candelariella xanthostigma		1
Candelariaceae	Candelariella		1
Capitellidae	Capitella		1
Carcharhinidae	Carcharhinus brevipinna	Spinner Shark	1
Carcharhinidae	Carcharhinus	Black Tip Shark	1
Pyrgotidae	Cardiacera		1
Cyperaceae	Carex appressa	Tall Sedge	1
Cyperaceae	Carex	Sedges	1
Aizoaceae	Carpobrotus edulis	Hottentot Fig	1
	Caryophyllales		1
Ichneumonidae	Casinaria		1
Lauraceae	Cassytha flava	Dodder Laurel	1
Lauraceae	Cassytha glabella f. casuarinae		1
Lauraceae	Cassytha pomiformis	Dodder Laurel	1
Lauraceae	Cassytha pubescens	Downy Dodder-laurel	1
Buprestidae	Castiarina mimesis		1
Buprestidae	Castiarina parallela		1
Buprestidae	Castiarina rufolimbata		1
Buprestidae	Castiarina sagittaria		1
Buprestidae	Castiarina trifasciata		1
Buprestidae	Castiarina versicolor		1
Acrididae	Catantopini		1
Curculionidae	Catasarcus coruscus		1
Curculionidae	Catasarcus griseus		1
Tiphiidae	Catocheilus affinis		1
Catophragmidae	Catomerus polymerus	Surf Barnacle	1
Caulerpaceae	Caulerpaceae		1
Sargassaceae	Caulocystis		1
Poaceae	Cenchrus macrourus	African Feather Grass	1
Poaceae	Cenchrus spinifex	Spiny Burr Grass	1
Poaceae	Cenchrus	Buffel Grass	1
Caprifoliaceae	Centranthus		1
Centrolepidaceae	Centrolepis inconspicua		1
Cephaloziellaceae	Cephaloziella exiliflora	Crimson Coalwort	1
Tephritidae	Ceratitis capitata	Medfly	1
Nereididae	Ceratonereis australis	Rag Worm	1
Hydrophilidae	Cercyon		1
Asilidae	Cerdistus		1
Coccidae	Ceroplastes		1
Chaetodontidae	Chaetodon assarius	Western Butterflyfish	1
Scapaniaceae	Chaetophyllopsis whiteleggei	Grey Woollywort	1
Chalcididae	Chalcis		1

Cuculidae	Chalcites lucidus plagosus	Australian Shining Bronze-cuckoo	1
Tenebrionidae	Chalcopteroides fastuosus		1
Chamidae	Chama pulchella	Beautiful Jewel Box	1
Fabaceae	Chamaecytisus palmensis	Tree Lucerne	1
Asparagaceae	Chamaescilla gibsonii		1
Myrtaceae	Chamelaucium sp. Yoongarillup (G.J.Keighery 3635)		1
Charadriidae	Charadrius (Charadrius) leschenaultii	Greater Sand Plover	1
Characeae	Chara		1
Charoniidae	Charonia lampas	Red Whelk	1
Iridaceae	Chasmanthe floribunda	African Cornflag	1
Cantharidae	Chauliognathus tricolor		1
Pteridaceae	Cheilanthes tenuifolia	Rock Fern	1
Cheilodactylidae	Cheilodactylus rubrolabiatus	Redlip Morwong	1
Cheiracanthiidae	Cheiracanthium		1
Formicidae	Chelaner longiceps	Ant	1
Triglidae	Chelidonichthys kumu	Red Gurnard	1
Chenopodiaceae	Chenopodium auricomiforme		1
Chenopodiaceae	Chenopodium glaucum	Glaucous Goosefoot	1
Chenopodiaceae	Chenopodium murale	Sowbane	1
Chenopodiaceae	Chenopodium	Fat Hen	1
Parastacidae	Cherax cainii	Marron	1
Parastacidae	Cherax tenuimanus	Yabbies	1
Parastacidae	Cherax	Yabbies	1
Geometridae	Chlenias		1
Laridae	Chlidonias (Chlidonias) leucopterus	White-winged Black Tern	1
Poaceae	Chloris gayana	Rhodes Grass	1
Trochidae	Chlorodiloma adelaidae	Adelaide Periwinkle	1
Trochidae	Chlorodiloma crinita		1
Agaricaceae	Chlorophyllum		1
	Chlorophyta		1
Scutelleridae	Choerocoris variegatus	Shield Bug	1
Fabaceae	Chorizema aciculare subsp. aciculare		1
Fabaceae	Chorizema aciculare subsp. laxum		1
Fabaceae	Chorizema nanum		1
Noctuidae	Chrysodeixis eriosoma	Green Looper Moth	1
Noctuidae	Chrysodeixis illuminata		1
Noctuidae	Chrysodeixis		1
Asilidae	Chrysopogon rufulus		1
Chrysothricaceae	Chrysothrix		1
Geometridae	Circopetes obtusata	Geometer Moth	1
Vitrinellidae	Circulus cinguliferus		1
Accipitridae	Circus assimilis	Spotted Harrier	1
Cirratulidae	Cirratulus		1
Cirratulidae	Cirriformia capensis		1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Cladoniaceae	Cladia aggregata	Common Coral-lichen	1
Cladoniaceae	Cladia inflata		1
Cladoniaceae	Cladonia cervicornis subsp. verticillata		1
Cladoniaceae	Cladonia krempelhuberi		1
Cladoniaceae	Cladonia tessellata		1
Davidiellaceae	Cladosporium		1
Cladostephaceae	Cladostephus spongiosus	Brown Algae	1
Trochidae	Clanculus maxillatus	Rounded Clanculus	1
Trochidae	Clanculus plebejus	Plebian Top Shell	1
Trochidae	Clanculus ringens	The Ringent Clanculus	1
Ranunculaceae	Clematis microphylla	Small-leaved Clematis	1

Ranunculaceae	Clematis	Old Man's Beard	1
Coccinellidae	Cleobora		1
Tricholomataceae	Clitocybe		1
Salticidae	Clynotis severus	Jumping Spider	1
Hygromiidae	Cochlicella acuta	Pointed Snail	1
Rhodymeniaceae	Coelarthrum		1
Muscidae	Coenosia		1
Rhyparochromidae	Coleocoris		1
Scutelleridae	Coleotichus costatus	Shield Bug	1
Collemataceae	Collema leucocarpum		1
Scarabaeidae	Colymbomorpha		1
Comatulidae	Comatulella brachiolata		1
Polygalaceae	Comesperma calymega	Blue-spike Milkwort	1
Polygalaceae	Comesperma polygaloides	Small Milkwort	1
Bombyliidae	Comptosia extensa		1
Bombyliidae	Comptosia		1
Lepadidae	Conchoderma virgatum		1
Tricholomataceae	Conchomyces bursiformis		1
Coniophoraceae	Coniophora puteana		1
Tettigoniidae	Conocephalus (Chloroxiphidion) upoluensis		1
Proteaceae	Conospermum caeruleum	Blue Brother	1
Proteaceae	Conospermum stoechadis	Common Smokebush	1
Ericaceae	Conostephium	Pearl Flowers	1
Haemodoraceae	Conostylis candicans subsp. candicans		1
Conidae	Conus (Virroconus) dorreensis	Chocolate-banded Cone	1
Convolvulaceae	Convolvulus angustissimus subsp. angustissimus	Blushing Bindweed	1
Convolvulaceae	Convolvulus arvensis	Common Bindweed	1
Dytiscidae	Copelatus ater	Diving Beetle	1
Tabanidae	Copidapha		1
Psathyrellaceae	Coprinopsis picacea		1
Cerambycidae	Coptocercus rubripes		1
Culicidae	Coquillettidia (Coquillettidia) linealis	Mosquito	1
Coreidae	Coreinae		1
Cortinariaceae	Cortinarius persplendidus		1
Corvidae	Corvus		1
Myrtaceae	Corymbia maculata	Spotted Gum	1
Crambidae	Corynophora		1
Hemerocallidaceae	Corynotheca micrantha var. elongata		1
Acrididae	Coryphistes		1
Crassulaceae	Crassula alata		1
Crassulaceae	Crassula natans var. minor	Water Crassula	1
Physciaceae	Cratiria lauricassiae		1
Aphalaridae	Creiis corniculatus	Psyllid Bug	1
Crepidotaceae	Crepidotaceae		1
Inocybaceae	Crepidotus nephrodes		1
Inocybaceae	Crepidotus uber		1
Asteraceae	Crepis foetida subsp. foetida	Stinking Hawksbeard	1
Rutaceae	Crowea angustifolia var. platyphylla	Bush Crowea	1
Theridiidae	Cryptachaea veruculata	Tangle-web Spider	1
Rhamnaceae	Cryptandra nutans		1
Prodidomidae	Cryptoerithus quobba		1
Lepismatidae	Ctenolepisma		1
Agamidae	Ctenophorus adelaidensis	Western Heath Dragon	1
Pompilidae	Ctenostegus		1
Scincidae	Ctenotus labillardieri	Red-legged Ctenotus	1
Scincidae	Ctenotus ora	Coastal Plains Skink	1

Scincidae	Ctenotus		1
Cucurbitaceae	Cucumis sp. Bunbury (G.Brayshaw s.n. 26/2/91)		1
Culicidae	Culex (Culex) annulirostris	Common Banded Mosquito	1
Convolvulaceae	Cuscuta campestris	Golden Dodder	1
Convolvulaceae	Cuscuta epithymum	Common Dodder	1
Convolvulaceae	Cuscuta suaveolens	Fringed Dodder	1
Cyaneidae	Cyanea annaskala		1
Orchidaceae	Cyanicula caerulea	Blue Fairy	1
Orchidaceae	Cyanicula	Blue Orchids	1
Varunidae	Cyclograpsus audouinii		1
Araneidae	Cyclosa		1
Juncaginaceae	Cycnogeton		1
Cylichnidae	Cylichna		1
Poaceae	Cynosurus echinatus	Rough Dog's Tail	1
Cyperaceae	Cyperus involucratus	Umbrella Plant	1
Cyperaceae	Cyperus laevigatus	Nutgrass	1
Cyperaceae	Cyperus latzii	Nutgrass	1
Cyperaceae	Cyperus		1
Cyprinidae	Cyprinus carpio	European Carp	1
Buprestidae	Cyrioides vittigera		1
Araneidae	Cyrtophora parnasia		1
Cystoseiraceae	Cystophora retroflexa	Brown Algae	1
Cystoseiraceae	Cystophora		1
Cystoseiraceae	Cystoseiraceae		1
	DECAPODA		1
	DERMAPTERA	Earwigs	1
Desidae	DESIDAE		1
Donacidae	DONACIDAE		1
Dorvilleidae	DORVILLEIDAE		1
Poaceae	Dactylis glomerata	Cocksfoot	1
Goodeniaceae	Dampiera hederacea	Karri Dampiera	1
Nymphalidae	Danaus chrysippus	Lesser Wanderer	1
Procellariidae	Daption capense capense	Southern Cape Petrel	1
Dasyaceae	Dasya		1
Dasyuridae	Dasyurus geoffroii fortis	Western Quoll	1
Fabaceae	Daviesia horrida	Prickly Bitter-pea	1
Fabaceae	Daviesia incrassata subsp. incrassata		1
Fabaceae	Daviesia inflata		1
Fabaceae	Daviesia nudiflora subsp. nudiflora		1
Fabaceae	Daviesia podophylla		1
Fabaceae	Daviesia polyphylla		1
Fabaceae	Daviesia	Bitter Peas	1
Pieridae	Delias harpalyce	Imperial Jezebel	1
Anthribidae	Dendropemon subfasciatus	Beetle	1
Corticiaceae	Dendrothele nivosa		1
Dermestidae	Dermestes (Dermestes) ater	Black Larder Beetle	1
Tettigoniidae	Dexerra vigescens		1
Hemerocallidaceae	Dianella brevicaulis	Small-flower Flax-lily	1
Chrysomelidae	Diaphanops		1
Goodeniaceae	Diaspasis filifolia	Thread-leaved Diaspasis	1
Erebidae	Diatenes aglossoides	Owlet Moth	1
Dictyotaceae	Dictyopteris		1
Dictyotaceae	Dictyota kunthii		1
Pentatomidae	Dictyotus caenosus	Brown Shield Bug	1
	Didymella macrostoma		1
Pottiaceae	Didymodon australasiae	Beard Moss	1

Pottiaceae	Didymodon torquatus	Beard Moss	1
Fabaceae	Dillwynia dillwynioides		1
Fabaceae	Dillwynia laxiflora		1
Fabaceae	Dillwynia	Egg And Bacon Peas	1
	Dilophospora		1
Asteraceae	Dimorphotheca ecklonis	Cape Daisy	1
Asteraceae	Dimorphotheca	Cape Marigold	1
Lycosidae	Dingosa serrata	Wolf Spider	1
Lycosidae	Dingosa		1
Staphylinidae	Diochus longus		1
Diodontidae	Diodon		1
Fissurellidae	Diodora jukesii	Latticed Keyhole Limpet	1
Diogenidae	Diogenes		1
Scarabaeidae	Diphucephala colaspidoides	Green Scarab Beetle	1
Buprestidae	Diphucrania minutissima		1
Libellulidae	Diplacodes bipunctata	Wandering Percher	1
Botryosphaeriaceae	Diplodia		1
Rutaceae	Diplolaena drummondii	Lesser Diplolaena	1
Rutaceae	Diplolaena grandiflora	Wild Rose	1
Rutaceae	Diplolaena		1
Thelotremataceae	Diploschistes thunbergianus		1
Brassicaceae	Diplotaxis	Rocket	1
Chrysomelidae	Ditropidus viridiaeneus		1
Chrysomelidae	Ditropidus		1
Asteraceae	Dittrichia graveolens	Stinkwort	1
Orchidaceae	Diuris amplissima	Giant Donkey Orchid	1
Orchidaceae	Diuris brumalis	Winter Donkey Orchid	1
Orchidaceae	Diuris carinata	Tall Bee Orchid	1
Orchidaceae	Diuris drummondii	Tall Donkey Orchid	1
Sapindaceae	Dodonaea	Hopbush	1
Aplysiidae	Dolabella auricularia		1
Formicidae	Doleromyrma		1
Formicidae	Dolichoderinae		1
Formicidae	Dolichoderus clusor		1
Formicidae	Dolichoderus nigricornis	Dolly Ant	1
Formicidae	Dolichoderus scabridus	Dolly Ant	1
Formicidae	Dolichoderus ypsilon		1
Donacidae	Donax (Deltachion) electilis	Southern Wedge Shell	1
Limacodidae	Doratifera quadriguttata	Four-spotted Cup Moth	1
Orchidaceae	Drakaea micrantha	Dwarf Hammer Orchid	1
Orchidaceae	Drakaea	Hammer Orchids	1
Hemerobiidae	Drepanacra binocula	Hooktipped Brown Lacewing	1
Droseraceae	Drosera geniculata		1
Droseraceae	Drosera huegelii	Bold Sundew	1
Droseraceae	Drosera intricata		1
Droseraceae	Drosera microphylla	Golden Rainbow	1
Droseraceae	Drosera myriantha	Star Rainbow	1
Droseraceae	Drosera nitidula	Shining Sundew	1
Droseraceae	Drosera tubaestylis		1
Dryophthoridae	Dryophthoridae		1
Ecnomidae	ECNOMIDAE		1
Ellobiidae	ELLOBIIDAE		1
Entocytheridae	ENTOCYTHERIDAE		1
Erebidae	EREBIDAE		1
Eriococcidae	ERIOCOCCIDAE		1
Eunicidae	EUNICIDAE	Blood Worm	1

Echinasteridae	Echinaster arcystatus	Seastar	1
Tenebrionidae	Ecnolagria		1
Therevidae	Ectinorhynchus levis		1
Noctuidae	Ectopatria		1
Cerambycidae	Ectosticta ruida		1
Chrysomelidae	Edusella aureoviridis		1
Tiphiidae	Eirone haerdtlii		1
Elatinaceae	Elatine gratioloides	Waterwort	1
Tettigoniidae	Elephantodeta		1
Fissurellidae	Emarginula (Emarginula) candida	Notched False Limpet	1
Ptinidae	Enasiba mirocera		1
Pyralidae	Endotricha pyrosalis	Grass Moth	1
Cossidae	Endoxyla coscinophanes		1
Cossidae	Endoxyla	Baardi	1
Hydrophilidae	Enochrus (Hydatotrephis) mastersii		1
Hydrophilidae	Enochrus (Methydrus) elongatulus	Water Scavenger Beetle	1
Hydrophilidae	Enochrus (Methydrus) eyrensis	Water Scavenger Beetle	1
Curculionidae	Entiminae		1
Scarabaeidae	Epichrysus lamprimoides		1
Coccinellidae	Epilachna		1
Onagraceae	Epilobium billardiereanum subsp. intermedium	Variable Willow-herb	1
Onagraceae	Epilobium ciliatum	Glandular Willow-herb	1
Serranidae	Epinephelides armatus	Breaksea Cod	1
Tortricidae	Epiphyas		1
Pompilidae	Episyron		1
Epitoniidae	Epitonium (Papyriscala) robillardi		1
Poaceae	Eragrostis brownii	Bentham's Love-grass	1
Poaceae	Eragrostis elongata	Lovegrass	1
Myrtaceae	Eremaea asterocarpa subsp. asterocarpa		1
Myrtaceae	Eremaea pauciflora		1
Asteraceae	Erigeron	Fleabane	1
Linyphiidae	Erigone prominens	Money Spider	1
Orchidaceae	Eriochilus dilatatus subsp. magnus	Easter Bunny Orchid	1
Orchidaceae	Eriochilus scaber	Pink Bunny Orchid	1
Orchidaceae	Eriochilus	Bunny Orchids	1
Syrphidae	Eristalinus (Lathyrophthalmus) aeneus		1
Geraniaceae	Erodium moschatum	Musky Herons-bill	1
Charadriidae	Erythrogonys cinctus	Red-kneed Dotterel	1
Trochidae	Ethaliella pulchella		1
Trochidae	Ethminolia vitiliginea	Subdued Top Shell	1
Monacanthidae	Eubalichthys		1
Myrtaceae	Eucalyptus adesmophloia	Wellstead Mallee	1
Myrtaceae	Eucalyptus decipiens	Redheart	1
Myrtaceae	Eucalyptus diversicolor	Karri	1
Myrtaceae	Eucalyptus marginata subsp. thalassica	Blue-leaved Jarrah	1
Myrtaceae	Eucalyptus patens	Blackbutt	1
Myrtaceae	Eucalyptus vegrandis	Ongerup Mallee	1
Chilodontidae	Euchelus		1
Asteraceae	Euchiton sphaericus	Common Cudweed	1
Sabellidae	Euchone		1
Ripiphoridae	Euctenia		1
Spheniscidae	Eudyptes chrysocome filholi	Eastern Rockhopper Penguin	1
Colletidae	Euhesma		1
Phyllodocidae	Eulalia		1
Hemiramphidae	Euleptorhamphus viridis	Longfin Garfish	1
Vespidae	Eumeninae		1

Chrysomelidae	Eumolpinae		1
Naticidae	Eunaticina papilla		1
Eunicidae	Eunice aphroditois	Aphrodite Worm	1
Scarabaeidae	Euoniticellus fulvus		1
Cicadellidae	Eupelicini		1
Euphorbiaceae	Euphorbia dendroides	Tree Spurge	1
Euphorbiaceae	Euphorbia peplus	Cancer Weed	1
Euphorbiaceae	Euphorbia terracina	False Caper	1
Euphorbiaceae	Euphorbiaceae	Spurge	1
Euphorbiaceae	Euphorbia	Spurge	1
Staphylinidae	Eupines (Eupines) distorticornis		1
Columbellidae	Euplica bidentata		1
Colletidae	Euryglossina (Euryglossina) hypochroma	Plasterer Bee	1
Cicadellidae	Eurymelinae		1
Theridiidae	Euryopis		1
Fabaceae	Eutaxia epacridoides		1
Fabaceae	Eutaxia myrtifolia		1
Cyperaceae	Evandra aristata	Zebra Sedge	1
Evaniidae	Evania		1
Gobiidae	Eviota bimaculata	Twospot Eviota	1
Convolvulaceae	Evolvulus alsinoides var. sericeus	Tropical Speedwell	1
Apidae	Exoneura (Brevineura) melaena	Reed Bee	1
Phasmatidae	Extatosoma tiaratum		1
Fasciolariidae	FASCIOLARIIDAE		1
Fissurellidae	FISSURELLIDAE		1
Flabelligeridae	FLABELLIGERIDAE	Bristle-cage Worms	1
Flatidae	FLATIDAE		1
	FULGOROMORPHA	Planthoppers	1
Pompilidae	Fabriogenia		1
Facelinidae	Facelina		1
Chrysomelidae	Faex transversomaculata		1
Falconidae	Falco (Tinnunculus) cenchroides cenchroides	Nankeen Kestrel	1
Faucheaceae	Faucheaceae		1
Muricidae	Favartia (Murexiella) brazieri	Brazier's Murex	1
Pyralidae	Faveria tritalis	Couchgrass Webworm Moth	1
Merulinidae	Favites		1
Serpulidae	Ficopomatus enigmaticus	Tube Worm	1
Cyperaceae	Fimbristylis velata	Veiled Fringe-rush	1
Fistulinaceae	Fistulina spiculifera		1
Boletaceae	Fistulinella mollis		1
Flatidae	Flatinae		1
Parmeliaceae	Flavoparmelia diffractaica		1
Parmeliaceae	Flavoparmelia ferax		1
Parmeliaceae	Flavoparmelia secalonica		1
Parmeliaceae	Flavoparmelia virensica		1
Teloschistaceae	Flavoplaca citrina		1
Hymenochaetaceae	Fomitiporia robusta		1
Fossombroniaceae	Fossombronia australis	Cellophane Frillwort	1
Fossombroniaceae	Fossombronia pusilla	Common Frillwort	1
Frankeniaceae	Frankenia	Sea-heath	1
Iridaceae	Freesia leichtlinii	Freesia	1
Anthomyiidae	Fucellia		1
Papaveraceae	Fumaria bastardii	Bastard Fumitory	1
Funariaceae	Funaria hygrometrica	Common Cord-moss	1
Triakidae	Furgaleus		1
Fasciolariidae	Fusinus		1

Gasteruptiidae	GASTERUPTIIDAE		1
Gekkonidae	GEKKONIDAE	Typical Geckos	1
	GELECHIOIDEA		1
Gryllotalpidae	GRYLLOTALPIDAE		1
	GYMNOLAEMATA		1
Gyrinidae	GYRINIDAE		1
Cyperaceae	Gahnia decomposita		1
Galaxiidae	Galaxiella nigrostriata	Blackstriped Dwarf Galaxias	1
Triakidae	Galeorhinus galeus	School Shark	1
Rubiaceae	Galium spurium	Bedstraw	1
Rallidae	Gallinula (Gallinula) tenebrosa tenebrosa	Australian Dusky Moorhen	1
Gasteruptiidae	Gasteruption rugosissimum		1
Gasteruptiidae	Gasteruption secundum	Parasitoid Wasp	1
Acrididae	Gastrimargus musicus	Yellow-winged Locust	1
Fabaceae	Gastrolobium celsianum		1
Fabaceae	Gastrolobium retusum		1
Turritellidae	Gazameda iredalei	Cross-barred Screw Shell	1
Geastraceae	Geastrum fornicatum		1
Bryaceae	Gemmabryum pachytheca	Acorn-fruited Thread-moss	1
Columbidae	Geopelia humeralis	Bar-shouldered Dove	1
Geraniaceae	Geranium gardneri	Rough Cranes-bill	1
Acanthizidae	Gerygone fusca fusca	South-west Western Gerygone	1
Polemoniaceae	Gilia		1
Iridaceae	Gladiolus carneus	Broad-leaf Painted Lady	1
Iridaceae	Gladiolus communis subsp. byzantinus	Byzantine Gladiolus	1
Glaucosomatidae	Glaucosoma hebraicum	West Australian Dhufish	1
Asteraceae	Glebionis segetum	Corn Marigold	1
Meliphagidae	Gliciphila melanops	Tawny-crowned Honeyeater	1
Haloragaceae	Glischrocaryon angustifolium	Golden Pennants	1
Hysteriaceae	Gloniopsis		1
Aphalaridae	Glycaspis (Glycaspis) brimblecombei	Redgum Lerp	1
Glyceridae	Glycera tridactyla	Blood Worm	1
Glycymerididae	Glycymeris (Glycymeris) radians	The Radiating Pectunculus	1
Carabidae	Gnathoxys insignitus		1
Asteraceae	Gnephosis angianthoides		1
Veneridae	Gomphina undulosa	Waved Venus	1
Fabaceae	Gompholobium burtonioides		1
Fabaceae	Gompholobium ovatum		1
Acrididae	Goniaea		1
Chromodorididae	Goniobranchus		1
Curculionidae	Gonipterus scutellatus	Eucalyptus Weevil	1
Haloragaceae	Gonocarpus nodulosus		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain A (M.Hislop 634)		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain B (L.W.Sage 2336)		1
Goodeniaceae	Goodeniaceae	Fan Flower	1
Ichneumonidae	Gotra caveata		1
Ichneumonidae	Gotra		1
Campanulaceae	Grammatotheca bergiana var. bergiana		1
Campanulaceae	Grammatotheca bergiana		1
Grapsidae	Grapsus		1
Plantaginaceae	Gratiola pubescens	Glandular Brooklime	1
Mytilidae	Gregariella splendida		1
Proteaceae	Grevillea dryandri subsp. dryandri	Dryander's Grevillea	1
Proteaceae	Grevillea preissii	Spider Net Grevillea	1
Proteaceae	Grevillea wilsonii	Wilson's Grevillea	1
Gryllidae	Gryllinae		1

Gryllidae	Gryllodes sigillatus	Indian House Cricket	1
Plagusiidae	Guinusia chabrus	Cleft-fronted Shore Crab	1
Tiphiidae	Gymnothynnus		1
Gyroporaceae	Gyroporus		1
Hydrophilidae	HYDROPHILIDAE		1
Hydropsychidae	HYDROPSYCHIDAE		1
Zodariidae	Habronestes		1
Ichneumonidae	Habronyx		1
Proteaceae	Hakea laurina	Pincushion Hakea	1
Proteaceae	Hakea marginata		1
Proteaceae	Hakea trifurcata	Two-leaf Hakea	1
Labridae	Haletta semifasciata	Blue Weed-whiting	1
Doridiidae	Halgerda		1
Hymenosomatidae	Halicarcinus ovatus	Three-pronged Sea-spider	1
Haliotidae	Haliotis scalaris scalaris		1
Haminoeidae	Haloa crocata		1
Hydrocharitaceae	Halophila ovalis	Halophila	1
Tiphiidae	Hathynnus pygmaeus		1
Muricidae	Haustellum wilsoni	Wilson's Murex	1
Tripterygiidae	Helcogramma decurrens	Blackthroat Threefin	1
Tenebrionidae	Heleina		1
Limnodynastidae	Heleioporus inornatus	Plains Frog	1
Helicarionidae	Helicarion		1
Asteraceae	Helichrysum		1
Boraginaceae	Heliotropium	Heliotrope	1
Crambidae	Hellula		1
Poaceae	Hemarthria uncinata var. uncinata	Mat Grass	1
Poaceae	Hemarthria uncinata	Matgrass	1
Lamiaceae	Hemiandra glabra		1
Corduliidae	Hemicordulia australiae	Australian Emerald	1
Gekkonidae	Hemidactylus frenatus	House Gecko	1
Lamiaceae	Hemigenia sericea	Silky Hemigenia	1
Syrphidae	Hemilampra		1
Hemigaleidae	Hemipristis elongata	Fossil Shark	1
Rhodomelaceae	Herposiphonia		1
Hesperiidae	Hesperilla dirphia	Western Brown Skipper	1
Hesperiidae	Hesperilla flavescens	Yellowish Skipper	1
Hesperiidae	Hesperilla trimaculata	Large Brown Skipper	1
Physciaceae	Heterodermia speciosa		1
Labridae	Heteroscarus acroptilus	Rainbow Cale	1
Dacrymycetaceae	Heterotextus peziziformis		1
Hiatellidae	Hiatella arctica		1
Dilleniaceae	Hibbertia mylnei		1
Dilleniaceae	Hibbertia pilosa	Hairy Guinea Flower	1
Dilleniaceae	Hibbertia semipilosa		1
Malvaceae	Hibiscus drummondii		1
Hippidae	Hippa		1
Hemerocallidaceae	Hodgsoniola junciformis		1
Temnopleuridae	Holopneustes		1
Poaceae	Hordeum leporinum	Barley Grass	1
Poaceae	Hordeum marinum	Sea Barley-grass	1
Sargassaceae	Hormophysa		1
Araneidae	Hortophora transmarina		1
Fabaceae	Hovea pungens	Devils Pins	1
Asparagaceae	Hyacinthoides	Wood Hyacinth	1
Asteraceae	Hyalosperma demissum	Dwarf Sunray	1

Asteraceae	Hyalosperma glutinosum subsp. glutinosum	Golden Sunray	1
Violaceae	Hybanthus debilissimus		1
Scalibregmatidae	Hyboscolex dicranochaetus		1
Dytiscidae	Hyderodes crassus	Diving Beetle	1
Hydrococcidae	Hydrococcus brazieri		1
Araliaceae	Hydrocotyle hispidula		1
Dytiscidae	Hydroglyphus basalis	Diving Beetle	1
Hydrophilidae	Hydrophilus (Hydrophilus) albipes	Water Scavenger Beetle	1
Elapidae	Hydrophis platurus	Yellow-bellied Sea Snake	1
Hygrophoraceae	Hygrocybe coccinea		1
Hygrophoraceae	Hygrocybe conica		1
Hygrophoraceae	Hygrophoraceae		1
Colletidae	Hylaeus (Gnathoprosopis)		1
Rhodymeniaceae	Hymenocladia		1
Hyocephalidae	Hyocephalus aprugnus		1
Clupeidae	Hyperlophus vittatus	Sandy Sprat	1
Carabidae	Hypharpax aereus		1
Dytiscidae	Hyphydrus elegans	Diving Beetle	1
Dytiscidae	Hyphydrus lyratus	Diving Beetle	1
Gloiosiphoniaceae	Hypnea charoides		1
Gloiosiphoniaceae	Hypnea		1
Myrtaceae	Hypocalymma cordifolium		1
Myrtaceae	Hypocalymma ericifolium		1
Ophioparmaceae	Hypocenomyce australis		1
Hypocreaceae	Hypocreaceae		1
Parmeliaceae	Hypogymnia subphysodes var. subphysodes		1
Parmeliaceae	Hypogymnia subphysodes		1
Restionaceae	Hypolaena fastigiata	Tassel Rope Rush	1
Rallidae	Hypotaenidia philippensis mellori	Australian Buff-banded Rail	1
Hypoxidaceae	Hypoxidaceae		1
	ICHNEUMONOIDEA		1
Ischnochitonidae	ISCHNOCHITONIDAE		1
Iulomorphidae	IULOMORPHIDAE		1
Cicadellidae	Iassinae		1
Scyllaridae	Ibacus peronii	Balmain Bug	1
Iblidae	Ibla quadrivalvis		1
Uranoscopidae	Ichthyscopus barbatus	Fringe Stargazer	1
Inocybaceae	Inocybe		1
Gnaphosidae	Intruda signata	Ground Spider	1
Noctuidae	Ipanica cornigera	Owlet Moth	1
Formicidae	Iridomyrmex turbineus		1
Veneridae	Irus (Irus) carditoides	White Irus	1
Veneridae	Irus (Notirus) exoticus		1
Veneridae	Irus		1
Actiniidae	Isanemonia australis		1
Mitridae	Isara badia		1
Vespidae	Ischnocoelia occidentalis blumburyensis		1
Cyperaceae	Isolepis prolifera	Proliferous Club-sedge	1
Peramelidae	Isoodon obesulus	Southern Brown Bandicoot	1
Sparassidae	Isopedella castanea		1
Proteaceae	Isopogon attenuatus		1
Proteaceae	Isopogon formosus subsp. dasylepis		1
Proteaceae	Isopogon formosus	Rose Coneflower	1
Proteaceae	Isopogon	Drumsticks	1
Istiophoridae	Istiompax indica	Black Marlin	1
Geometridae	Isturgia penthearia	Geometer Moth	1

Tiphiidae	Iswaroides		1
Chrysopidae	Italochrysa insignis		1
Iridaceae	Ixia cultivar	Ixia	1
Fabaceae	Jacksonia spinosa		1
Corallinaceae	Jania affinis		1
Ischyroceridae	Jassa slatteryi		1
Salticidae	Jotus minutus		1
Juncaceae	Juncus caespiticius	Grassy Rush	1
Juncaceae	Juncus hybridus		1
Juncaceae	Juncus subsecundus	Finger Rush	1
Juncaceae	Juncus	Rushes	1
Nymphalidae	Junonia villida	Meadow Argus	1
Bombyliidae	Kapu westralica		1
Kelliidae	Kellia yorkensis		1
Fabaceae	Kennedia coccinea subsp. calcaria		1
Fabaceae	Kennedia nigricans	Black Coral-pea	1
Fabaceae	Kennedia rubicunda	Red Kennedy Pea	1
Myrtaceae	Kunzea ericifolia	Spearwood	1
Lepidoziaceae	Kurzia compacta	Fingerwort	1
Laridae	LARIDAE	Western Indian Ocean Bridled Tern	1
Lasaeidae	LASAEIDAE		1
Lasiocampidae	LASIOCAMPIDAE		1
Lauxaniidae	LAUXANIIDAE		1
Limacidae	LIMACIDAE		1
Linyphiidae	LINYPHIIDAE	Money Spiders	1
Lonchaeidae	LONCHAEIDAE	Lonchaeid Flies	1
Lumbricidae	LUMBRICIDAE		1
Hydnangiaceae	Laccaria fraterna		1
Hydnangiaceae	Laccaria lateritia		1
Asparagaceae	Lachenalia flava		1
Asparagaceae	Lachenalia	Lachenalia	1
Russulaceae	Lactifluus		1
Asteraceae	Lactuca sativa	Lettuce	1
Asteraceae	Lagenophora platysperma		1
Lamponidae	Lampona punctigera	White-tailed Spider	1
Characeae	Lamprothamnium		1
Verbenaceae	Lantana camara	Lantana	1
Halictidae	Lasioglossum (Austrevylaeus) melanurum		1
Halictidae	Lasioglossum (Chilalictus) occiduum		1
Halictidae	Lasioglossum (Chilalictus)		1
Halictidae	Lasioglossum (Glossalictus) etheridgei		1
Halictidae	Lasioglossum (Homalictus) dotatum		1
Halictidae	Lasioglossum (Homalictus)		1
Malvaceae	Lasiopetalum laxiflorum		1
Malvaceae	Lasiopetalum	Velvet Bush	1
Laternulidae	Laternula (Laternula) creccina	Creccina Lantern Shell	1
Lamiaceae	Lavandula dentata	French Lavender	1
Malvaceae	Lawrencia spicata	Salt Lawrencia	1
Asparagaceae	Laxmannia minor		1
Asparagaceae	Laxmannia ramosa subsp. ramosa	Branching Lily	1
	Lecanoromycetes		1
Colletidae	Leioproctus (Cladocerapis)		1
Colletidae	Leioproctus (Leioproctus)		1
Colletidae	Leioproctus (Protomorpha) minutus		1
Colletidae	Leioproctus (Protomorpha) plautus		1
Colletidae	Leioproctus (Urocolletes) rhodurus		1

Auriscalpiaceae	Lentinellus pulvinulus		1
Eunicidae	Leodice antennata		1
Polynoidae	Lepidonotus		1
Psychidae	Lepidoscia		1
Cyperaceae	Lepidosperma calcicola		1
Cyperaceae	Lepidosperma costale		1
Cyperaceae	Lepidosperma effusum	Spreading Sword-sedge	1
Cyperaceae	Lepidosperma leptostachyum		1
Cyperaceae	Lepidosperma sp. Blackwood (R.Davis 7696)		1
Cyperaceae	Lepidosperma sp. Margaret River (B.J.Lepschi 1841)		1
Anostostomatidae	Leponosandrus		1
Orchidaceae	Leporella	Fringed Hare-orchid	1
Pertusariaceae	Lepra scaberula		1
Atherinidae	Leptatherina presbyteroides	Silver Fish	1
Restionaceae	Leptocarpus denmarkicus		1
Restionaceae	Leptocarpus laxus		1
Restionaceae	Leptocarpus thysananthus		1
Restionaceae	Leptocarpus trisepalus		1
Restionaceae	Leptocarpus		1
Leptograpsodidae	Leptograpsodes octodentatus	Burrowing Shore Crab	1
Santalaceae	Leptomeria empetriformis		1
Santalaceae	Leptomeria furtiva		1
Santalaceae	Leptomeria scrobiculata		1
Curculionidae	Leptopius spinosus		1
Myrtaceae	Leptospermum laevigatum	Coast Tea-tree	1
Myrtaceae	Leptospermum sericatum		1
Restionaceae	Lepyrodia		1
Strophariaceae	Leratiomyces		1
Scincidae	Lerista praepedita	Blunt-tailed West-coast Slider	1
Agaricaceae	Leucoagaricus leucothites		1
Tricholomataceae	Leucopaxillus		1
Ericaceae	Leucopogon gracilis		1
Ericaceae	Leucopogon nutans	Drooping Leucopogon	1
Ericaceae	Leucopogon oldfieldii		1
Ericaceae	Leucopogon reflexus		1
Ericaceae	Leucopogon striatus		1
Leucothoidae	Leucothoe diemenensis		1
Stylidiaceae	Levenhookia aestiva		1
Stylidiaceae	Levenhookia	Styleworts	1
	Lidophia graminis		1
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1
Scarabaeidae	Liparetrus gravidus		1
Scarabaeidae	Liparetrus		1
Menyanthaceae	Liparophyllum capitatum		1
Ichneumonidae	Lissopimpla excelsa	Dusky Winged Ichneumonid (orchid Dupe Wasp)	1
Erebidae	Lithosiini		1
Pelodryadidae	Litoria		1
Curculionidae	Lixus mastersii	Weed Weevil	1
Curculionidae	Lixus		1
Campanulaceae	Lobelia rarifolia		1
Campanulaceae	Lobelia rhombifolia	Tufted Lobelia	1
Campanulaceae	Lobelia tenuior subsp. tenuior	Slender Lobelia	1
Phocidae	Lobodon carcinophaga	Crab-eater Seal	1
Loganiaceae	Logania vaginalis	White Spray	1
Asteraceae	Logfia gallica	Narrow Cudweed	1

Poaceae	Lolium x hybridum	Hybrid Ryegrass	1
Asparagaceae	Lomandra maritima	Maritime Mat Rush	1
Asparagaceae	Lomandra micrantha subsp. tuberculata	Small-flowered Mat-rush	1
Asparagaceae	Lomandra pauciflora		1
Caprifoliaceae	Lonicera	Honeysuckle	1
Lophocoleaceae	Lophocolea		1
Pergidae	Lophyrotoma analis	Sawfly	1
Tellinidae	Loxoglypta assimilis		1
Hymenosomatidae	Lucasinus bedfordi		1
Calliphoridae	Lucilia cuprina	Australian Sheep Blowfly	1
Calliphoridae	Lucilia		1
Procellariidae	Lugensa brevirostris	Kerguelen Petrel	1
Procellariidae	Lugensa		1
Turbinidae	Lunella (Ninella) torquata	Rough Turban Shell	1
Cardiidae	Lunulicardia retusa	The Blunt Cockle	1
Fabaceae	Lupinus albus		1
Mactridae	Lutraria		1
Buthidae	Lychas marmoreus	Marbled Scorpion	1
Agaricaceae	Lycoperdon		1
Eunicidae	Lysidice ninetta	Blood Worm	1
Ericaceae	Lysinema elegans		1
Lythraceae	Lythrum hyssopifolia	Lesser Loosestrife	1
Mactridae	MACTRIDAE		1
	MACTROIDEA		1
	MEMBRACOIDEA		1
Veliidae	MICROVELIINAE		1
Monarchidae	MONARCHIDAE	Western Lesser Sundas Island Monarch	1
Morabidae	MORABIDAE		1
Mugilidae	MUGILIDAE	Mullet	1
Muridae	MURIDAE		1
Cyperaceae	Machaerina articulata	Jointed Twig-rush	1
Cyperaceae	Machaerina vaginalis		1
Agaricaceae	Macrolepiota clelandii		1
Procellariidae	Macronectes giganteus	Southern Giant-petrel	1
Centriscidae	Macroramphosus scolopax	Common Bellowsfish	1
Mactridae	Mactra (Mactra) pura	Pure Trough Shell	1
Hyocephalidae	Maevius indecorus		1
Chrysopidae	Mallada signatus	Green Lacewing	1
Maluridae	Malurus (Leggeornis) lamberti	Variegated Fairy-wren	1
Malvaceae	Malva arborea	Tree Mallow	1
Mantidae	Mantis octospilota	Blackbarred Mantid	1
Salticidae	Maratus pavonis	Species Of Peacock Spider	1
Salticidae	Maratus spicatus		1
Fasciolariidae	Marmorofusus philippii	Tessellate Spindle Shell	1
Marsileaceae	Marsilea drummondii	Clover Fern	1
Asteraceae	Mauranthemum paludosum	Ox-eye Daisy	1
Carabidae	Mecyclothorax (Mecyclothorax) punctipennis		1
Fabaceae	Medicago littoralis	Strand Medic	1
Fabaceae	Medicago orbicularis	Button Medic	1
Carditidae	Megacardita		1
Megachilidae	Megachile (Austrochile) resinifera		1
Megachilidae	Megachile (Eutricharaea) obtusa	Bee	1
Megachilidae	Megachile ferox	Bee	1
Ascalaphidae	Megacmonotus magnus	Owlfly	1
Megalyridae	Megalyra		1
Dytiscidae	Megaporus howittii	Diving Beetle	1

Dytiscidae	Megaporus solidus	Diving Beetle	1
Myrtaceae	Melaleuca huegelii	Chenille Honeymyrtle	1
Myrtaceae	Melaleuca incana	Grey Honeymyrtle	1
Myrtaceae	Melaleuca microphylla		1
Myrtaceae	Melaleuca osullivanii		1
Myrtaceae	Melaleuca quinquenervia	Swamp Paperbark	1
Myrtaceae	Melaleuca seriata		1
Myrtaceae	Melaleuca uncinata	Broombush	1
Myrtaceae	Melaleuca viminea	Mohan	1
Melianthaceae	Melianthus major	Cape Honey-flower	1
Penaeidae	Melicertus latisulcatus	King Prawns	1
Fabaceae	Melilotus albus	Bokhara Clover	1
Poaceae	Melinis repens	Red Natal-grass	1
Buprestidae	Melobasis cuprifera		1
Formicidae	Melophorus		1
Psittacidae	Melopsittacus undulatus	Budgerigar	1
Salticidae	Menemerus bivittatus		1
Lamiaceae	Mentha suaveolens	Apple Mint	1
Formicidae	Meranoplus		1
Tellinidae	Merisca margaritina		1
Tortricidae	Meritastis		1
Aizoaceae	Mesembryanthemum	Iceplant	1
Cyperaceae	Mesomelaena stygia subsp. stygia		1
Cyperaceae	Mesomelaena stygia		1
Ziphiidae	Mesoplodon bowdoini	Andrews' Beaked Whale	1
Ziphiidae	Mesoplodon		1
Temnopleuridae	Mespilia globulus		1
Vespidae	Metaparagia maculata		1
Penaeidae	Metapenaeus dalli	Western School Prawn	1
Ichneumonidae	Metopius		1
Micropezidae	Metopochetus		1
Microcanthidae	Microcanthus strigatus	Stripey	1
Phalacrocoracidae	Microcarbo melanoleucos melanoleucos	Australasian Little Pied Cormorant	1
Petroicidae	Microeca (Microeca) fascinans	Jacky Winter	1
Poaceae	Microlaena stipoides var. stipoides	Weeping Rice-grass	1
Orchidaceae	Microtis alba	White Mignonette Orchid	1
Orchidaceae	Microtis cupularis	Cupped Mignonette Orchid	1
Orchidaceae	Microtis media subsp. densiflora	Dense Mignonette Orchid	1
Orchidaceae	Microtis quadrata	South Coast Mignonette Orchid	1
Orchidaceae	Microtis unifolia	Common Onion Orchid	1
Mydidae	Miltinus		1
Nyctaginaceae	Mirabilis jalapa	Marvel-of-peru	1
Fabaceae	Mirbelia dilatata	Holly-leaved Mirbelia	1
Actinopodidae	Missulena hoggi		1
Miturgidae	Miturga		1
Miturgidae	Mitzoruga insularis		1
Mytilidae	Modiolus auriculatus	Winged Mussel	1
Tineidae	Moerarchis clathrata		1
Cypraeidae	Monetaria caputserpentis		1
Pyrgomorphidae	Monistria maculicornis		1
Pyrgomorphidae	Monistria		1
Elateridae	Monocrepidus		1
Asteraceae	Monoculus monstrosus	Tripteris	1
Monomachidae	Monomachus		1
Formicidae	Monomorium laeve	Yellow Mono Ant	1
Formicidae	Monomorium sordidum	Ant	1

Tineidae	Monopis meliorella		1
Fissurellidae	Montfortula rugosa	Rough Notch Limpet	1
Morabidae	Morabinae	Matchstick Grasshoppers	1
Iridaceae	Moraea miniata	Two-leaf Cape Tulip	1
Morchellaceae	Morchella australiana		1
Polygonaceae	Muehlenbeckia complexa	Wire Vine	1
Muscidae	Musca vetustissima	Bush Fly	1
Muscidae	Muscini		1
Sphaeriidae	Musculium (Sphaerinova) kendricki		1
Myochamidae	Myadora complexa		1
Mycenaceae	Mycenaceae		1
Asteraceae	Myriocephalus helichrysoides		1
Haloragaceae	Myriophyllum limnophilum		1
Haloragaceae	Myriophyllum propinquum	Water Milfoil	1
Haloragaceae	Myriophyllum tillaeoides		1
Formicidae	Myrmecia analis		1
Formicidae	Myrmecia michaelseni		1
Formicidae	Myrmecia rugosa		1
Formicidae	Myrmecia tepperi	Bucktoothed Bull Ant	1
Formicidae	Myrmecia testaceipes	Bull Ant	1
Montacutidae	Mysella angasiana		1
Montacutidae	Mysella vitrea		1
Montacutidae	Mysella		1
Mysidae	Mysinae		1
	Myxomycetes		1
Naticidae	NATICIDAE		1
Neopilionidae	NEOPILIONIDAE		1
	NEPOMORPHA		1
	NEUROPTERA	Ant-lions	1
Nicodamidae	NICODAMIDAE		1
Noctuidae	NOCTUIDAE		1
Nabidae	Nabis (Tropiconabis) kinbergii	Pacific Damsel Bug	1
Nacellidae	Naccula punctata	Dotted Limpet	1
	Naematelia		1
Amaryllidaceae	Narcissus pseudonarcissus	Common Daffodil	1
Amaryllidaceae	Narcissus tazetta	Polyanthus Narcissus	1
Cypraeidae	Naria helvola	Honey Cowry	1
Termitidae	Nasutitermes exitiosus	Snouted Termite	1
Naticidae	Naticarius colliei	Seychelle Moon Shell	1
Nautilidae	Nautilus pompilius	Emperor Nautilus	1
Geometridae	Nearcha staurotis		1
Dytiscidae	Necterosoma darwini	Diving Beetle	1
Ericaceae	Needhamiella pumilio		1
Beroidae	Neis cordigera		1
Monacanthidae	Nelusetta ayraud	Ocean Jacket	1
Cheilodactylidae	Nemadactylus valenciennesi	Blue Morwong	1
Clupeidae	Nematalosa vlaminghi	Bony Breams	1
Cucumariidae	Neoamphicyclus altoffi		1
Reduviidae	Neohavinthus pentatoma	Assassin Bug	1
Reduviidae	Neohavinthus		1
Cerambycidae	Neostenus saundersii		1
Araneidae	Nephila pilipes	Giant Wood-spider	1
Ichneumonidae	Netelia		1
Terebellidae	Nicolea amnis	Spaghetti Worm	1
Strigidae	Ninox (Hieracoglaux) connivens	Barking Owl	1
Noctuidae	Noctuinae		1

Nostocaceae	Nostoc commune	Blue-green Alga	1
Lottiidae	Notoacmea alta		1
Cypraeidae	Notocypraea pulicaria	Flea-spotted Cowry	1
Cypraeidae	Notocypraea		1
Buprestidae	Notographus		1
Parmeliaceae	Notoparmelia erumpens		1
Acanthochitonidae	Notoplax addenda		1
Corinnidae	Nucastia		1
Erebidae	Nyctemera amicus	Moth	1
Nymphaeaceae	Nymphaea mexicana	Mexican Water-lily	1
Cacatuidae	Nymphicus hollandicus	Cockatiel	1
Lygaeidae	Nysius vinitor	Rutherglen Bug	1
Lygaeidae	Nysius		1
	OESTROIDEA		1
	ONISCIDEA		1
Orectolobidae	ORECTOLOBIDAE	Wobbegong	1
Chironomidae	ORTHOCLADIINAE		1
Oxycarenidae	OXYCARENIDAE		1
Oceanitidae	Oceanites oceanicus	Wilson's Storm-petrel	1
Pertusariaceae	Ochrolechia pallescens		1
Pentatomidae	Ocirrhoe		1
Columbidae	Ocyphaps lophotes whitlocki	Western Crested Pigeon	1
Stratiomyidae	Odontomyia		1
Mutillidae	Odontomyrme		1
Oecanthidae	Oecanthus		1
Acrididae	Oedaleus australis	Australian Oedaleus	1
Geometridae	Oenochroma cerasiplaga		1
Geometridae	Oenochroma vinaria	Grevillea Looper Moth	1
Oenosandridae	Oenosandra boisduvalii	Boisduval S Autumn Moth	1
Onagraceae	Oenothera stricta	Common Evening Primrose	1
Acroceridae	Ogcodes (Ogcodes) wilsoni		1
Tettigoniidae	Oligodectoides tindalei	Tindale's Shieldback Katydid	1
Julidae	Ommatoiulus		1
Pentatomidae	Oncocoris apicalis	Shield Bug	1
Pentatomidae	Oncocoris desertus		1
Bombyliidae	Oncodosia ampla		1
Bombyliidae	Oncodosia		1
Scarabaeidae	Onitis		1
Scarabaeidae	Onthophagus evanidus		1
Dytiscidae	Onychohydrus		1
Anoplocephalidae	Oochoristica vacuolata		1
Epitoniidae	Opalia granosa	Granose Wentletrap	1
Tenebrionidae	Opatrini		1
Rubiaceae	Opercularia echinocephala	Bristly Headed Stinkweed	1
Ophiuridae	Ophiocrossota multispina		1
Ophiotrichidae	Ophiothrix (Ophiothrix) caespitosa	Brittlestar Species	1
Ophichthidae	Ophisurus serpens	Serpent Eel	1
Salticidae	Opisthoncus nigrofemoratus		1
Salticidae	Opisthoncus polyphemus		1
Erebidae	Orgyia		1
Loganiaceae	Orianthera serpyllifolia subsp. serpyllifolia		1
Loganiaceae	Orianthera wendyae		1
Menyanthaceae	Ornduffia		1
Asparagaceae	Ornithogalum thyrsoides	Chincherinchee	1
Mantidae	Orthodera		1
Oscarellidae	Oscarella		1

Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Actiniidae	Oulactis mcmurrichi		1
Oxalidaceae	Oxalis incarnata	Pale Wood-sorrel	1
Oxalidaceae	Oxalis purpurea	One-o'clock	1
Zonitidae	Oxychilus alliarius	Garlic Snail	1
Fabaceae	Oxylobium	Shaggy Peas	1
Oxyopidae	Oxyopes gratus	Lynx Spider	1
Oxyopidae	Oxyopes		1
Staphylinidae	Oxytelini		1
Oziidae	Ozius truncatus	Reef Crab	1
Palaemonidae	PALAEMONIDAE		1
	PAPILIONOIDEA		1
Parastacidae	PARASTACIDAE		1
Reduviidae	PEIRATINAE		1
Phasmatidae	PHASMATIDAE		1
Pilumnidae	PILUMNIDAE		1
Pisauridae	PISAURIDAE	Water Spiders	1
Platyarthridae	PLATYARTHRIDAE		1
Polynoidae	POLYNOIDAE	Scale Worm	1
Porcellionidae	PORCELLIONIDAE		1
Cerambycidae	PRIONINAE		1
Procellariidae	PROCELLARIIDAE	Atlantic Petrel	1
Psychodidae	PSYCHODIDAE		1
Pterophoridae	PTEROPHORIDAE		1
Pycnogonidae	PYCNOGONIDAE		1
Oecophoridae	Pachybela crustulata		1
Tettigoniidae	Pachysaga australis		1
Dictyotaceae	Padina		1
Cypraeidae	Palmadusta clandestina		1
Eunicidae	Palola siciliensis	Blood Worm	1
	Panaeolina foenisecii		1
	Panaeolus		1
Accipitridae	Pandion		1
Poaceae	Panicum capillare	Common Millet	1
Pannariaceae	Pannaria		1
Parmeliaceae	Pannoparmelia wilsonii		1
Erebidae	Pantydia sparsa	Owlet Moth	1
Mesodesmatidae	Paphies (Amesodesma) elongata	Narrow Wedge Shell	1
Papilionidae	Papilio (Princeps) aegeus	Large Citrus Butterfly	1
Dentaliidae	Paradentalium intercalatum		1
Cicadellidae	Paradorydium		1
Varunidae	Paragrapsus		1
Vespidae	Paralastor argyrias		1
Vespidae	Paralastor neochromus		1
Vespidae	Paralastor punctulatus		1
Sepsidae	Parapalaeosepsis plebeia	Black Scavenger Fly	1
Cynoglossidae	Paraplagusia		1
Pempheridae	Parapriacanthus elongatus	Elongate Bullseye	1
Spionidae	Paraprionospio coora	Spionid Worm	1
Therevidae	Parapsilocephala		1
Sabellidae	Parasabella aberrans		1
Sabellidae	Parasabella crassichaetae		1
Fabaceae	Paraserianthes lophantha subsp. lophantha	Crested Wattle	1
Fabaceae	Paraserianthes lophantha	Cape Leeuwin Wattle	1
Pentacerotidae	Parazanclistius hutchinsi	Short Boarfish	1
Pardalotidae	Pardalotus (Pardalotus) punctatus xanthopyge	Yellow-rumped Pardalote	1

Maeridae	Parelasmopus echo		1
Parmeliaceae	Parmotrema cetratum		1
Chrysomelidae	Paropsisterna debilis		1
Chrysomelidae	Paropsisterna m-fuscum		1
Chrysomelidae	Paropsisterna nobilitata	Noble Eucalyptus Leaf Beetle	1
Chrysomelidae	Paropsis		1
Vitaceae	Parthenocissus quinquefolia	Virginia Creeper	1
Poaceae	Paspalum vaginatum	Water Couch	1
Poaceae	Paspalum	Paspalum	1
Passeridae	Passer (Passer) domesticus	House Sparrow	1
Passeridae	Passer (Passer) montanus	Eurasian Tree Sparrow	1
Passifloraceae	Passiflora caerulea	Blue Passionflower	1
Passifloraceae	Passiflora filamentosa	Palmate Passionflower	1
Therevidae	Patanothrix		1
Lottiidae	Patelloida nigrosulcata		1
Iridaceae	Patersonia occidentalis var. occidentalis	Long Purple-flag	1
Hypoxidaceae	Pauridia occidentalis		1
Hypoxidaceae	Pauridia		1
Oceanitidae	Pelagodroma marina	White-faced Storm-petrel	1
Geraniaceae	Pelargonium x domesticum	Pelargonium	1
Geraniaceae	Pelargonium x hortorum	Zonal Pelargonium	1
Procellariidae	Pelecanoides urinatrix exsul	Subantarctic Diving-petrel	1
Curculionidae	Pelororhinus		1
Zodariidae	Pentasteron		1
Pergidae	Pergagrapta bicolor		1
Pergidae	Perginae		1
Nereididae	Perinereis vallata	Rag Worm	1
Noctuidae	Periscepta butleri		1
Noctuidae	Persectania		1
Polygonaceae	Persicaria decipiens	Slender Knotweed	1
Polygonaceae	Persicaria	Smartweeds	1
Proteaceae	Persoonia	Geebungs	1
Pertusariaceae	Pertusaria georgeana var. occidentalis		1
Dromiidae	Petalomera		1
Petraliidae	Petralia		1
Asteropseidae	Petricia vernicina	Velvet Seastar	1
Veneridae	Petricola		1
	Pezizales		1
Polyporaceae	Phaeotrametes decipiens		1
Phalacrocoracidae	Phalacrocorax (Anacarbo) fuscescens	Black-faced Cormorant	1
Poaceae	Phalaris aquatica	Phalaris	1
Poaceae	Phalaris minor	Lesser Canary-grass	1
Phallaceae	Phallus flavocostatus		1
Tettigoniidae	Phaneropterinae		1
Dasyuridae	Phascogale tapoatafa	Brush-tailed Phascogale	1
Turbinidae	Phasianella		1
Formicidae	Pheidole antipodum	Ant	1
Formicidae	Pheidole megacephala	African Big-headed Ant	1
Hymenochaetaceae	Phellinus igniarius		1
Hymenochaetaceae	Phellinus		1
Bankeraceae	Phellodon niger		1
Architectonicidae	Philippia lutea	Yellow Sundial	1
Uloboridae	Philoponella		1
Meruliaceae	Phlebia radiata		1
Cleridae	Phlogistus eremita		1
Cleridae	Phlogistus		1

Pholcidae	Pholcus		1
Strophariaceae	Pholiota communis		1
Strophariaceae	Pholiota		1
Cerambycidae	Phoracanthini		1
Amorphoscelidae	Phthersigena		1
Meliphagidae	Phylidonyris		1
Scarabaeidae	Phyllococerus purpurascens		1
Lycopodiaceae	Phylloglossum drummondii	Pigmy Clubmoss	1
Boletaceae	Phylloporus		1
Physaliidae	Physalia physalis	Portuguese Man-of-war	1
Physaliidae	Physalia utriculus		1
Solanaceae	Physalis hederifolia	Ivy-leaf Ground-cherry	1
Solanaceae	Physalis peruviana	Cape Gooseberry	1
Physciaceae	Physcia jackii		1
Physciaceae	Physcia neonubila		1
Physciaceae	Physcia poncinsii		1
Physciaceae	Physcia stellaris sensu		1
Physciaceae	Physcia undulata		1
Physciaceae	Physciaceae		1
Physciaceae	Physcia		1
Physciaceae	Physconia		1
Ulidiidae	Physiphora clausa		1
Peronosporaceae	Phytophthora drechsleri		1
Peronosporaceae	Phytophthora nicotianae		1
Asteraceae	Picris angustifolia	Native Picris	1
Asteraceae	Picris	Ox-tongue	1
Reduviidae	Piestolestes		1
Thymelaeaceae	Pimelea angustifolia	Narrow-leaved Pimelea	1
Thymelaeaceae	Pimelea ciliata	White Banjine	1
Thymelaeaceae	Pimelea hispida	Bristly Pimelea	1
Thymelaeaceae	Pimelea imbricata		1
Thymelaeaceae	Pimelea lehmanniana subsp. nervosa		1
Scarabaeidae	Pimelopus dubius dubius		1
Scarabaeidae	Pimelopus nothus		1
Sclerodermataceae	Pisolithus marmoratus		1
Crabronidae	Pison		1
Placynthiaceae	Placynthium nigrum		1
Placynthiaceae	Placynthium		1
Plantaginaceae	Plantago	Plantain	1
Threskiornithidae	Platalea (Platalea) regia	Royal Spoonbill	1
Trochanteriidae	Platorish gelorup		1
Platycephalidae	Platycephalus bassensis	Southern Sand Flathead	1
Pentatomidae	Platycoris minimus		1
Pentatomidae	Platycoris		1
Blattidae	Platyzosteria		1
Pentatomidae	Plautia affinis	Green Stink Bug	1
Araneidae	Plebs		1
Geometridae	Plesanemma fucata	Lemon Gum Moth	1
Pleurotaceae	Pleurotus ostreatus		1
Pleurotaceae	Pleurotus		1
Plocamiaceae	Plocamium cartilagineum		1
Polyceridae	Plocamopherus		1
Plotosidae	Plotosus lineatus	Striped Catfish	1
Pluteaceae	Pluteus		1
Charadriidae	Pluvialis fulva	Pacific Golden Plover	1
Poaceae	Poa labillardierei	Common Tussock-grass	1

Poaceae	Poa poiformis var. poiformis	Coast Tussock-grass	1
Phasmatidae	Podacanthus keyi	Key’s Stick-insect	1
Phasmatidae	Podacanthus viridiroseus	Red-winged Stick-insect	1
Sphecidae	Podalonia		1
Asteraceae	Podolepis lessonii		1
Asteraceae	Podolepis nutans		1
Formicidae	Podomyrma		1
Pentatomidae	Poecilometis vermiculatus		1
Pentatomidae	Poecilometis		1
Pentatomidae	Poecilotoma scutellata		1
Agamidae	Pogona		1
Tettigoniidae	Polichne parvicauda		1
Vespidae	Polistes (Polistes)		1
Zygaenidae	Pollanisus cupreus		1
Caryophyllaceae	Polycarpon tetraphyllum	Four-leaf Allseed	1
Polycirridae	Polycirrus		1
	Polypodiales		1
Polyporaceae	Polyporaceae		1
Polyporaceae	Polyporus		1
Formicidae	Polyrhachis (Campomyrma)		1
Rhodomelaceae	Polysiphonia sertularioides		1
Blattidae	Polyzosteria cuprea		1
Pomatomidae	Pomatomus saltatrix	Tailor	1
Pompilidae	Pompilinae		1
Porpidiaceae	Porpidia macrocarpa		1
Potamogetonaceae	Potamogeton	Pondweeds	1
Orchidaceae	Prasophyllum cyphochilum	Pouched Leek Orchid	1
Orchidaceae	Prasophyllum drummondii	Swamp Leek Orchid	1
Orchidaceae	Prasophyllum gracillimum	Slender Leek Orchid	1
Carcharhinidae	Prionace glauca	Blue Shark	1
Spionidae	Prionospio tatura	Spionid Worm	1
Spionidae	Prionospio wambiri	Spionid Worm	1
Sphecidae	Prionyx globosus	Wasp	1
Sphecidae	Prionyx saevus		1
Reduviidae	Pristhesancus		1
Pristiophoridae	Pristiophorus nudipinnis	Southern Sawshark	1
Corduliidae	Procordulia affinis	Western Swamp Emerald	1
Buprestidae	Prospheres aurantiopictus		1
Pentatomidae	Protestrica		1
Parmeliaceae	Protoparmelia hesperia		1
Rosaceae	Prunus cerasifera	Purple-leaf Cherry-plum	1
Rosaceae	Prunus persica	Peach	1
Pyrgomorphidae	Psedna nana	Variable Psedna Grasshopper	1
Psittacidae	Psephotellus varius	Mulga Parrot	1
Buprestidae	Pseudanilara kerremansi		1
Euphorbiaceae	Pseudanthus		1
Carangidae	Pseudocaranx wrighti	Silver Trevallies	1
Pseudocheiridae	Pseudocheirus peregrinus	Common Ringtail Possum	1
Asteraceae	Pseudognaphalium		1
Gobiidae	Pseudogobius		1
Asterinidae	Pseudonepanthia troughtoni	Seastar	1
Curculionidae	Pseudonotonophes gilesi		1
Moridae	Pseudophycis barbata	Bearded Rock Cod	1
Lychnorhizidae	Pseudorhiza haeckelii		1
Lychnorhizidae	Pseudorhiza		1
Trochidae	Pseudostomatella		1

Lymnaeidae	Pseudosuccinea columella	Striated Pond Snail	1
Pterocladiaceae	Pterocladia		1
Rhodomelaceae	Pterosiphonia pennata		1
Orchidaceae	Pterostylis actites	Coastal Short-eared Snail Orchid	1
Orchidaceae	Pterostylis glebosa	Clubbed Snail Orchid	1
Orchidaceae	Pterostylis serotina	Late Bird Orchid	1
Lichinaceae	Pterygiopsis		1
Reduviidae	Ptilocnemus		1
Amaranthaceae	Ptilotus drummondii	Narrowleaf Mulla Mulla	1
Amaranthaceae	Ptilotus sericostachyus subsp. sericostachyus		1
Amaranthaceae	Ptilotus stirlingii subsp. stirlingii		1
Pucciniaceae	Puccinia calcitrapae		1
Pucciniaceae	Puccinia myrsiphylli		1
Pucciniaceae	Puccinia		1
Procellariidae	Puffinus (Puffinus) assimilis	Little Shearwater	1
Fabaceae	Pultenaea ericifolia		1
Coccidae	Pulvinariella		1
Parmeliaceae	Punctelia subalbicans		1
Parmeliaceae	Punctelia subrudecta		1
Cypraeidae	Purpuradusta gracilis		1
Asteraceae	Pycnosorus globosus	Drumsticks	1
	Pyrenochaeta		1
Cicadidae	Pyropsalta		1
Petroicidae	Quoyornis georgiana	White-breasted Robin	1
Rhinotermitidae	RHINOTERMITIDAE		1
Scoliidae	Radumeris tasmaniensis	Parasitoid Wasp	1
Ramalinaceae	Ramalina inflata subsp. australis		1
Gomphaceae	Ramaria capitata		1
Lecanoraceae	Ramboldia stuartii		1
Lecanoraceae	Ramboldia		1
Ranunculaceae	Ranunculus muricatus	Pricklefruit Buttercup	1
Ranunculaceae	Ranunculus pumilio	Ferny Buttercup	1
Brassicaceae	Raphanus	Radish	1
Miridae	Rayieria basifer	Plant Bug	1
Tricholomataceae	Resupinatus applicatus		1
Curculionidae	Rhadinosomus lacordairei	Thin Strawberry Weevil	1
Chenopodiaceae	Rhagodia baccata subsp. dioica	Sea Berry Saltbush	1
Geometridae	Rhinodia rostraria	Geometer Moth	1
Geometridae	Rhinodia undiferaria		1
Belidae	Rhinotia melanocephala		1
Rhipiceridae	Rhipicera (Agathorhipis) mystacina		1
Rhipiduridae	Rhipidura		1
Rhizopogonaceae	Rhizopogon luteolus		1
Asteraceae	Rhodanthe chlorocephala subsp. rosea	Common Everlasting	1
Asteraceae	Rhodanthe corymbosa		1
Asteraceae	Rhodanthe floribunda	Large White Sunray	1
Asteraceae	Rhodanthe propinqua		1
Cystocloniaceae	Rhodophyllis		1
Mytilidae	Rhomboidella rhyllensis		1
Mytilidae	Rhomboidella		1
Formicidae	Rhytidoponera punctigera		1
Cerambycidae	Rhytiphora		1
Aneuraceae	Riccardia crassa	Yellow Germanderwort	1
Ricciaceae	Riccia crystallina	Blue Crystalwort	1
Ricciaceae	Riccia		1
Rissoinidae	Rissoina		1

Platystomatidae	Rivellia		1
Zygophyllaceae	Roepera fruticulosa		1
Iridaceae	Romulea flava var. minor	Yellow Onion-grass	1
Iridaceae	Romulea flava		1
Brassicaceae	Rorippa nasturtium-aquaticum	Watercress	1
Lamiaceae	Rosmarinus officinalis	Rosemary	1
Bryaceae	Rosulabryum albolimbatum	Thread Moss	1
Bryaceae	Rosulabryum billarderii	Common Thread-moss	1
Polygonaceae	Rumex acetosella	Sorrel	1
Polygonaceae	Rumex brownii	Swamp Dock	1
Polygonaceae	Rumex obtusifolius	Broad-leaf Dock	1
Polygonaceae	Rumex vesicarius	Bladder Dock	1
Polygonaceae	Rumex	Emex	1
Tachinidae	Rutilia (Rutilia) vivipara	Horse Fly	1
Staphylinidae	Rybaxis acutidens		1
Poaceae	Rytidosperma acerosum		1
Poaceae	Rytidosperma duttonianum	Brown-back Wallaby-grass	1
Poaceae	Rytidosperma penicillatum	Slender Wallaby Grass	1
Scincidae	SCINCIDAE		1
Scoliidae	SCOLIIDAE		1
Sepsidae	SEPSIDAE		1
Siphonotidae	SIPHONOTIDAE		1
	STERNORRHYNCHA	Whiteflies	1
	STRIGIFORMES		1
Caryophyllaceae	Sagina maritima	Sea Pearlwort	1
Amphibolidae	Salinator fragilis	Salt Shell	1
Salicaceae	Salix babylonica	Weeping Willow	1
Salicaceae	Salix x sepulcralis	Weeping Willow	1
Salicaceae	Salix	Willow	1
Histeridae	Saprinus (Saprinus) chalcites		1
Sarcophagidae	Sarcophaginae		1
Sargassaceae	Sargassum		1
Goodeniaceae	Scaevola glandulifera	Viscid Hand-flower	1
Goodeniaceae	Scaevola lanceolata	Long-leaved Scaevola	1
Goodeniaceae	Scaevola nitida	Shining Fanflower	1
Scalibregmatidae	Scalibregma inflatum		1
Carabidae	Scaraphites lenaeus		1
Carabidae	Scaraphites lucidus		1
Microascaceae	Scedosporium aurantiacum		1
Anacardiaceae	Schinus terebinthifolia	Brazilian Pepper Tree	1
Anacardiaceae	Schinus	Pepper Tree	1
Schizoporellidae	Schizoporella		1
Asteraceae	Schoenia cassiniana	Pink Everlasting	1
Cyperaceae	Schoenus elegans		1
Cyperaceae	Schoenus loliaceus		1
Cyperaceae	Schoenus sp. Little black fruit (A.C.Beauglehole ACB 12538)		1
Cyperaceae	Schoenus subbarbatus	Bearded Bog-rush	1
Cyperaceae	Schoenus subbulbosus		1
Cyperaceae	Schoenus subfascicularis		1
Asparagaceae	Scilla peruviana	Cuban Lily	1
Sclerodermataceae	Scleroderma verrucosum		1
	Sclerodermatineae		1
Sclerodermataceae	Scleroderma		1
Chiridotidae	Scoliorhapis		1
Orbiniidae	Scoloplos		1
Crambidae	Scoparia exhibitalis		1

Carabidae	Scopodes		1
Dictyotaceae	Scoresbyella		1
Patellidae	Scutellastra chapmani	Eight-rayed Limpet	1
Patellidae	Scutellastra laticostata	Giant Limpet	1
Buprestidae	Selagis intercribrata		1
Sematophyllaceae	Sematophyllum subhumile var. contiguum	Pallid Signal-moss	1
Sematophyllaceae	Sematophyllum		1
Tellinidae	Semelangulus		1
Asteraceae	Senecio diaschides	Shingle Fireweed	1
Asteraceae	Senecio hispidulus	Rough Fireweed	1
Asteraceae	Senecio lautus	Variable Groundsel	1
Asteraceae	Senecio vulgaris	Common Groundsel	1
Sepiidae	Sepia braggi	Slender Cuttlefish	1
Mycosphaerellaceae	Septoria aureocorona		1
Crabronidae	Sericophorus froggatti		1
Ichneumonidae	Sericopimpla australis	Ichneumon Wasp	1
Ichneumonidae	Sericopimpla crenator	Ichneumon Wasp	1
Carangidae	Seriola dumerili	Samsonfishes	1
Carangidae	Seriola lalandi	Yellowtail Kingfish	1
Poaceae	Setaria palmifolia	Palm Grass	1
Malvaceae	Sida hookeriana		1
Therevidae	Sidarena hortorum		1
Thomisidae	Sidymella trapezia	Trapezium Crab Spider	1
Thomisidae	Sidymella		1
Caryophyllaceae	Silene gallica var. gallica	French Catchfly	1
Sillaginidae	Sillago bassensis	School Whitings	1
Sillaginidae	Sillago schomburgkii	Yellowfin Whiting	1
Asteraceae	Siloxerus filifolius		1
Asteraceae	Silybum marianum	Variegated Thistle	1
Syrphidae	Simosyrphus grandicornis	Hoverfly	1
Nereididae	Simplisetia amphidonta	Rag Worm	1
Nereididae	Simplisetia transversa	Rag Worm	1
Siphonariidae	Siphonaria jeanae		1
Siphonariidae	Siphonaria kurracheensis		1
Siphonariidae	Siphonaria zelandica		1
Siphonocladaceae	Siphonocladaceae		1
Labridae	Siphonognathus beddomei	Pencil Weed Whiting	1
Curculionidae	Siraton roei		1
Brassicaceae	Sisymbrium irio	London Rocket	1
Brassicaceae	Sisymbrium officinale	Hedge Mustard	1
Pholcidae	Smeringopus natalensis		1
Araneidae	Socca arena		1
Solanaceae	Solanum elaeagnifolium	Silver-leaf Nightshade	1
Solanaceae	Solanum linnaeanum	Apple Of Sodom	1
Solanaceae	Solanum symonii	Symon's Kangaroo-apple	1
Solanaceae	Solanum	Nightshades	1
Urticaceae	Soleirolia soleirolii	Baby's Tears	1
Asteraceae	Soliva sessilis	Jo-jo	1
Asteraceae	Sonchus asper	Rough Sow-thistle	1
Asteraceae	Sonchus hydrophilus	Native Sow-thistle	1
Poaceae	Sorghum x drummondii		1
Pyronemataceae	Sowerbyella rhenana		1
Caryophyllaceae	Spergularia rubra	Sand Spurry	1
Sphacelariaceae	Sphacelaria brachygonia		1
Pterophoridae	Sphenarches anisodactylus		1
Ericaceae	Sphenotoma		1

Sphecidae	Sphex ermineus	Wasp	1
Sphecidae	Sphex luctuosus	Wasp	1
Sphyraenidae	Sphyraena obtusata	Striped Barracuda	1
Heterakidae	Spinicauda similis		1
Poaceae	Spinifex		1
Spionidae	Spio blakei	Spionid Worm	1
Noctuidae	Spodoptera litura	Armyworm Moth	1
Crambidae	Spoladea recurvalis		1
Squatinidae	Squatina australis	Australian Angelshark	1
Celastraceae	Stackhousia pubescens		1
Pterophoridae	Stangeia xerodes	Xerodes Plume Moth	1
Theridiidae	Steatoda capensis	Tangle-web Spider	1
Theridiidae	Steatoda grossa	Tangle-web Spider	1
Theridiidae	Steatoda		1
Stemonitidaceae	Stemonitis		1
Bolboceratidae	Stenaspidius brittoni		1
Delphinidae	Stenella coeruleoalba	Striped Dolphin	1
Cicadellidae	Stenocotis		1
Stenothoidae	Stenothoe valida		1
Stercorariidae	Stercorarius antarcticus	Brown Skua	1
Stereaceae	Stereum hirsutum		1
Laridae	Sterna (Sterna) dougallii	Roseate Tern	1
Dytiscidae	Sternopriscus wattsi		1
Sigalionidae	Sthenelais pettiboneae	Scale Worm	1
Ascalaphidae	Stilbopteryx napoleo		1
Proteaceae	Stirlingia		1
Trochidae	Stomatella impertusa	False Ear Shell	1
Strelitziaceae	Strelitzia nicolai	Giant Bird Of Paradise	1
Strophariaceae	Stropharia aurantiaca		1
Stylidiaceae	Stylidium acuminatum subsp. acuminatum		1
Stylidiaceae	Stylidium breviscapum	Boomerang Triggerplant	1
Stylidiaceae	Stylidium diuroides	Donkey Triggerplant	1
Stylidiaceae	Stylidium graminifolium	Grass Triggerplant	1
Stylidiaceae	Stylidium hispidum	White Butterfly Triggerplant	1
Stylidiaceae	Stylidium lateriticola		1
Stylidiaceae	Stylidium lineatum	Sunny Triggerplant	1
Stylidiaceae	Stylidium longitubum	Jumping Jacks	1
Stylidiaceae	Stylidium squamosotuberosum	Fleshy-rhizomed Triggerplant	1
Muricidae	Subpterynotus tatei	Tate's Murex	1
Veneridae	Sunetta (Sunemeroe) vaginalis		1
Tellinidae	Sylvanus		1
Tenebrionidae	Sympetes		1
Asteraceae	Symphyotrichum subulatum	Wild Aster	1
Limoniidae	Symplecta (Trimicra) pilipes		1
Proteaceae	Synaphea favosa		1
Proteaceae	Synaphea flabelliformis		1
Proteaceae	Synaphea sp. Serpentine (G.R.Brand 103)		1
Lycidae	Synchonnus corrugatus		1
Phasianidae	Synoicus		1
Garypidae	Synsphyronus magnus		1
Pottiaceae	Syntrichia antarctica	Bristly Screw-moss	1
Pottiaceae	Syntrichia papillosa	Screw Moss	1
Pottiaceae	Syntrichia ruralis		1
Turbinellidae	Syrinx aruanus	False Trumpet Shell	1
Syrphidae	Syrphinae		1
	TELLINOIDEA		1

Tineidae	TINEIDAE		1
Tineodidae	TINEODIDAE		1
Tipulidae	TIPULIDAE		1
Tipulidae	TIPULINAE		1
Trochidae	TROCHIDAE	Periwinkles	1
Crabronidae	Tachysphex vardyi	Wasp	1
Crabronidae	Tachysphex		1
Hersiliidae	Tamopsis reevesbyana		1
Plotosidae	Tandanus bostocki	Freshwater Cobbler	1
Dictyotaceae	Taonia australasica		1
Asteraceae	Taraxacum khatoonae	Dandelion	1
Asteraceae	Taraxacum	Garden Dandelion	1
Cleridae	Tarsostenus univittatus		1
Lycosidae	Tasmanicosa	Australian Union-jack Wolf Spiders	1
Tateidae	Tatea		1
Splachnaceae	Tayloria octoblephara	Dung Moss	1
Formicidae	Technomyrmex jocosus	Ant	1
Chenopodiaceae	Tecticornia arbuscula	Shrubby Samphire	1
Chenopodiaceae	Tecticornia indica subsp. bidens	Samphire	1
Chenopodiaceae	Tecticornia indica	Samphire	1
Tellinidae	Tellina		1
Tellinidae	Tellinides		1
Teloschistaceae	Teloschistes sieberianus		1
Siliquariidae	Tenagodus australis	Australian Worm Shell	1
Tenebrionidae	Tenebrio obscurus	Dark Mealworm	1
Tephromelataceae	Tephromela alectoronica		1
Teratosphaeriaceae	Teratosphaeria nubilosa		1
Teredinidae	Teredo navalis	Teredo Ship-worm	1
Tetraclitidae	Tetraclitella purpurascens	Purple Four-plated Barnacle	1
Geometridae	Thalaina angulosa	Angled Satin Moth	1
Geometridae	Thalaina		1
Laridae	Thalasseus bergii cristatus	Australasian Crested Tern	1
Trochidae	Thalotia conica	Conical Top Shell	1
Kallymeniaceae	Thamnophyllis		1
Theaceae	Theaceae		1
Lycaenidae	Theclinesthes serpentatus serpentatus	Salt-bush Blue	1
Thelepodidae	Thelepus		1
Orchidaceae	Thelymitra campanulata	Shirt Orchid	1
Orchidaceae	Thelymitra holmesii	Blue-star Sun-orchid	1
Orchidaceae	Thelymitra paludosa	Plain Sun Orchid	1
Poaceae	Themeda triandra	Kangaroo Grass	1
Semelidae	Theora		1
Theridiidae	Theridion theridioides		1
Mantispidae	Theristria		1
Pentatomidae	Theseus		1
Charadriidae	Thinornis cucullatus	Hooded Plover	1
Malvaceae	Thomasia cognata		1
Malvaceae	Thomasia pauciflora	Few Flowered Thomasia	1
Malvaceae	Thomasia		1
Chenopodiaceae	Threlkeldia diffusa	Coast Bonefruit	1
Thuidiaceae	Thuidiaceae		1
Vermetidae	Thylacodes sipho		1
Tiphiidae	Thynnus		1
Apidae	Thyreus		1
Gempylidae	Thyrsites atun	Barracouta	1
Cladoniaceae	Thysanothecium scutellatum		1

Asparagaceae	Thysanotus dichotomus	Branching Fringe Lily	1
Asparagaceae	Thysanotus tuberosus	Common Fringe-lily	1
Tineidae	Tineola bisselliella	Moth	1
Dytiscidae	Tiporus undecimmaculatus	Diving Beetle	1
Alcedinidae	Todiramphus (Cyanalcyon) pyrrhopygius	Red-backed Kingfisher	1
Asteraceae	Tolpis barbata	Yellow Hawkweed	1
Pottiaceae	Tortella flavovirens		1
Goniasteridae	Tosia australis	Biscuit Star	1
Carangidae	Trachinotus baillonii	Smallspotted Dart	1
Araliaceae	Trachymene	Wild Parsnip	1
Trochanteriidae	Trachytrema castaneum		1
Polyporaceae	Trametes marianna		1
Agyriaceae	Trapeliopsis flexuosa		1
Tremellaceae	Tremella encephala		1
Tremellaceae	Tremella mesenterica		1
Tremellaceae	Tremellaceae		1
Trichiuridae	Trichiurus	Hairtails	1
Hemerocallidaceae	Tricoryne		1
Cyperaceae	Tricostularia aphylla	Medusa Sedge	1
Fabaceae	Trifolium arvense var. arvense	Hare's-foot Clover	1
Fabaceae	Trifolium arvense	Haresfoot Clover	1
Fabaceae	Trifolium pratense	Red Clover	1
Juncaginaceae	Triglochin centrocarpa	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin isingiana	Spurred Arrowgrass	1
Juncaginaceae	Triglochin nana	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin	Lilaea	1
Scolopacidae	Tringa (Heteroscelus) brevipes	Grey-tailed Tattler	1
Hydatellaceae	Trithuria australis		1
Nassariidae	Tritia burchardi	Burchard's Dog Whelk	1
Cleridae	Trogodendron fasciculatum		1
Tropaeolaceae	Tropaeolum majus	Nasturtium	1
Urolophidae	Trygonoptera mucosa	Western Shovelnose Stingaree	1
Urolophidae	Trygonoptera personata	Masked Stingaree	1
Rhinobatidae	Trygonorrhina dumerilii	Magpie Ray	1
Syllidae	Trypanosyllis zebra		1
Termitidae	Tumulitermes apiocephalus		1
Pompilidae	Turneromyia bassiana	Spider Wasp	1
Oecophoridae	Tymbophora peltastis	Concealer Moth	1
Typhaceae	Typha domingensis	Cumbungi	1
Mycetophagidae	Typhaea stercorea	Hairy Fungus Beetle	1
Syllidae	Typosyllis prolifera		1
Tytonidae	Tyto novaehollandiae	Masked Owl	1
Ungulinidae	UNGULINIDAE		1
Ulvaceae	Ulva compressa	Sea Lettuce	1
Ulvaceae	Ulva intestinalis	Sea Lettuce	1
Ulvaceae	Ulva lactuca	Sea Lettuce	1
	Ulvophyceae		1
Upogebiidae	Upogebia darwinii		1
Upogebiidae	Upogebia tractabilis		1
Upogebiidae	Upogebia		1
Cerambycidae	Uracanthus		1
Crambidae	Uresiphita ornithopteralis	Tree Lucerne Moth	1
Acrididae	Urnisa		1
Urodacidae	Urodacus novaehollandiae		1
Urolophidae	Urolophus		1
Parmeliaceae	Usnea scabrida		1

Parmeliaceae	Usnea subeciliata		1
Ustilaginaceae	Ustilago avenae		1
Ustilaginaceae	Ustilago spinificis		1
Ustilaginaceae	Ustilago		1
Erebidae	Utetheisa pulchelloides	Crimson Spotted Moth	1
Erebidae	Utetheisa		1
Lentibulariaceae	Utricularia inaequalis		1
Lentibulariaceae	Utricularia violacea	Violet Bladderwort	1
Acrididae	Valanga irregularis	Giant Grasshopper	1
Varanidae	Varanus rosenbergi	Heath Monitor	1
Scrophulariaceae	Verbascum virgatum	Twiggy Mullein	1
Verbenaceae	Verbena litoralis	Verbena	1
Verbenaceae	Verbena officinalis	Common Verbena	1
Myrtaceae	Verticordia acerosa var. preissii		1
Myrtaceae	Verticordia densiflora var. densiflora	Compacted Featherflower	1
Myrtaceae	Verticordia densiflora var. pedunculata	Longstalked Featherflower	1
Myrtaceae	Verticordia densiflora	Compacted Featherflower	1
Myrtaceae	Verticordia insignis subsp. insignis		1
Myrtaceae	Verticordia plumosa var. plumosa		1
Myrtaceae	Verticordia	Featherflowers	1
Fabaceae	Vicia benghalensis	Purple Vetch	1
Fabaceae	Vicia hirsuta	Hairy Vetch	1
Menyanthaceae	Villarsia		1
Bombyliidae	Villa		1
Violaceae	Violaceae	Violet	1
Poaceae	Vulpia fasciculata	Sand Fescue	1
Poaceae	Vulpia myuros f. myuros	Rat's-tail Fescue	1
Asteraceae	Waitzia nitida		1
Lysianassidae	Waldeckia		1
Lucinidae	Wallucina assimilis		1
Neoniphargidae	Wesniphargus		1
Crabronidae	Williamsita vedetta		1
Convolvulaceae	Wilsonia backhousei	Narrow-leaf Wilsonia	1
Fabaceae	Wisteria		1
Colchicaceae	Wurmbea monantha		1
Colchicaceae	Wurmbea sp. Cranbrook (A.R.Annels 3819)		1
Colchicaceae	Wurmbea tenella	Eight Nancy	1
Colchicaceae	Wurmbea		1
Ichneumonidae	Xanthopimpla		1
Teloschistaceae	Xanthoria parietina		1
Apiaceae	Xanthosia tasmanica	Southern Xanthosia	1
Aoridae	Xenocheira		1
Mytilidae	Xenostrobus inconstans	Variable Brown Mussel	1
Mytilidae	Xenostrobus		1
Asteraceae	Xerochrysum bracteatum	Golden Everlasting	1
Lycidae	Xylobanus meyricki		1
Buprestidae	Xyroscelis crocata		1
Zygaenidae	ZYGAENIDAE		1
Cacatuidae	Zanda		1
Tettigoniidae	Zaprochilus australis	Twig-mimicking Katydid	1
Cleridae	Zenithicola scrobiculata		1
Cypraeidae	Zoila friendii friendii	Friend's Cowry	1
Cypraeidae	Zoila		1
Blattidae	Zonioploca occidentalis		1
Zosteropidae	Zosterops lateralis chloronotus	Western Silvereye	1
Orthotrichaceae	Zygodon intermedius	Common Zygodon	1

Endemic Species

Endemic Species: **30**

Spatially valid records are considered those that do not have any type of flag questioning their location, for example a terrestrial species being recorded in the ocean. [Ref6]

Number of endemic species (spatially valid only): **30**

Table 3: Endemic Species

Family	*Scientific Name*	Common Name	No. Occurrences
Tiphiidae	Aeolothynnus minutus		3
Pteromalidae	Aeschylia picta		1
Corixidae	Agraptocorixa macrops	Water Boatman	3
Aequoreidae	Aldersladia		1
Geometridae	Amelora pentheres		1
Apidae	Apini		1
Arenicolidae	Arenicola caroledna		1
Megascolecidae	Austrohoplochaetella whistleri		1
Curculionidae	Bagous (Hydrillaebagous) callosus		2
Asilidae	Chrysopogon rufulus		1
Bombyliidae	Comptosia extensa		1
Cucurbitaceae	Cucumis sp. Bunbury (G.Brayshaw s.n. 26/2/91)		1
Staphylinidae	Diochus longus		1
Chrysomelidae	Ditropidus viridiaeneus		1
Hepialidae	Fraus megacornis		3
Georissidae	Georissus (Neogeorissus) occidentalis		2
Tiphiidae	Hathynnus pygmaeus		1
Helicarionidae	Helicarion castanea	A Helicarionid Land Snail	5
Vespidae	Ischnocoelia occidentalis blumburyensis		1
Acroceridae	Ogcodes (Ogcodes) wilsoni		1
Oecophoridae	Pachybela crustulata		1
Buprestidae	Pseudanilara kerremansi		1
Curculionidae	Pseudonotonophes gilesi		1
Tettigoniidae	Requena kadyakia		6
Staphylinidae	Rybaxis acutidens		1
Crabronidae	Tachysphex vardyi	Wasp	1
Nemestrinidae	Trichophthalma (Trichophthalma) variolosa		6
Crabronidae	Williamsita vedetta		1
Tiphiidae	Zaspilothynnus vestitus		2

All threatened species

Number of threatened species: **303**

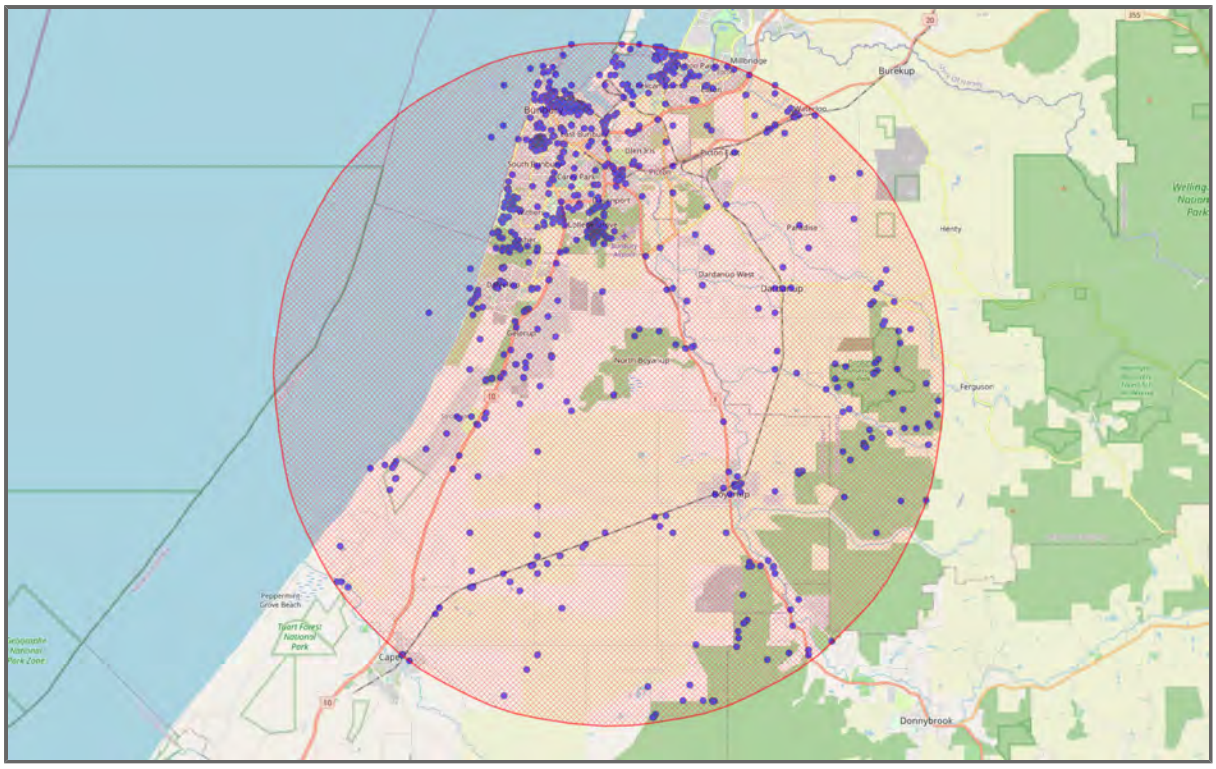

Figure 3 : Map of All threatened species

Table 4: All threatened species (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Haematopodidae	Haematopus longirostris	Australian Pied Oystercatcher	553
Ardeidae	Egretta garzetta	Little Egret	500
Acanthizidae	Gerygone fusca	Western Gerygone	493
Anatidae	Biziura lobata	Musk Duck	349
Ardeidae	Ardea alba modesta	Great Egret	229
Anatidae	Aythya (Nyroca) australis	Hardhead	229
Cacatuidae	Zanda baudinii	Long-billed Black-cockatoo	213
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii	Red-tailed Black Cockatoo	205
Laridae	Sternula nereis	Fairy Tern	162
Petroicidae	Petroica (Petroica) boodang	Scarlet Robin	129
Psittacidae	Polytelis anthopeplus	Regent Parrot	128
Anatidae	Spatula rhynchotis	Australasian Shoveler	112
Anatidae	Oxyura australis	Blue-billed Duck	104
Accipitridae	Pandion haliaetus cristatus	Eastern Osprey	91
Accipitridae	Haliaeetus (Pontoaetus) leucogaster	White-bellied Sea-eagle	68
Psittacidae	Neophema (Neonanodes) elegans	Elegant Parrot	68
Cacatuidae	Zanda latirostris	Short-billed Black-cockatoo	58
Orchidaceae	Pterostylis	Greenhoods	44
Orchidaceae	Caladenia speciosa	Sandplain White Spider Orchid	39
Phyllanthaceae	Phyllanthus calycinus	Snowdrop Spurge	39
Podicipedidae	Podiceps cristatus	Great Crested Grebe	38
Maluridae	Stipiturus malachurus	Southern Emu-wren	35
Laridae	Thalasseus bergii	Crested Tern	35
Psittacidae	Parvipsitta porphyrocephala	Purple-crowned Lorikeet	34
Accipitridae	Hieraaetus (Hieraaetus) morphnoides	Little Eagle	33

Orchidaceae	Caladenia	Fairy Orchids	30
Neosittidae	Daphoenositta (Neositta) chrysoptera	Varied Sittella	29
Stylidiaceae	Levenhookia pusilla	Tiny Stylewort	29
Meliphagidae	Epthianura (Epthianura) albifrons	White-fronted Chat	27
Myrtaceae	Melaleuca	Tea-tree	26
Rallidae	Zapornia tabuensis	Spotless Crake	24
Burramyidae	Cercartetus concinnus	Western Pygmy-possum	23
Myrtaceae	Corymbia haematoxylon	Mountain Marri	23
Laridae	Hydroprogne caspia	Caspian Tern	23
Accipitridae	Lophoictinia isura	Square-tailed Kite	22
Stylidiaceae	Levenhookia stipitata	Common Stylewort	19
Orchidaceae	Diuris	Donkey Orchids	18
Accipitridae	Pandion haliaetus	Osprey	18
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	18
Fabaceae	Pultenaea skinneri	Skinner's Pea	17
Myrtaceae	Eucalyptus	Studley Park Gum	16
Scincidae	Acritoscincus trilineatus	Western Three-lined Skink	15
Santalaceae	Santalum acuminatum	Sweet Quandong	15
Fabaceae	Acacia	Wattle	14
Scolopacidae	Actitis hypoleucos	Common Sandpiper	14
Idiopidae	Idiosoma sigillatum	Swan Coastal Plain Shield-backed Trapdoor Spider	14
Myrtaceae	Melaleuca cuticularis	Western Swamp-paperbark	14
Proteaceae	Synaphea odocoileops		14
Aponogetonaceae	Aponogeton hexatepalus	Stalked Water Ribbons	13
Pseudocheiridae	Pseudocheirus occidentalis	Western Ringtail Possum	13
Stylidiaceae	Stylidium perplexum		13
Procellariidae	Halobaena caerulea	Blue Petrel	12
Juncaceae	Juncus kraussii	Sea Rush	12
Droseraceae	Drosera paleacea	Dwarf Sundew	11
Ardeidae	Ixobrychus dubius	Minute Bittern	11
Urticaceae	Parietaria debilis	Shade Pellitory	11
Fabaceae	Acacia semitrullata		10
Recurvirostridae	Cladorhynchus leucocephalus	Banded Stilt	10
Droseraceae	Drosera glanduligera	Scarlet Sundew	10
Asteraceae	Quinetia urvillei	Quinetia	10
Proteaceae	Synaphea hians		10
Fabaceae	Gastrolobium whicherense		9
Haloragaceae	Myriophyllum crispatum	Upright Milfoil	9
Elapidae	Pseudonaja affinis	Dugite	9
Orchidaceae	Thelymitra benthamiana	Leopard Sun-orchid	9
Fabaceae	Viminaria juncea	Native Broom	9
Dilleniaceae	Hibbertia	Guinea Flowers	8
Araliaceae	Hydrocotyle diantha	Kangaroo Island Pennywort	8
Araliaceae	Hydrocotyle intertexta	Buttercup Pennywort	8
Threskiornithidae	Plegadis falcinellus	Glossy Ibis	8
Poaceae	Polypogon tenellus		8
Orchidaceae	Prasophyllum	Leek Orchids	8
Orchidaceae	Pterostylis sanguinea	Blood Greenhood	8
Orchidaceae	Thelymitra flexuosa	Twisted Sun-orchid	8
Orchidaceae	Thelymitra pauciflora	Slender Sun Orchid	8
Convolvulaceae	Wilsonia humilis	Silky Wilsonia	8
Fabaceae	Acacia flagelliformis		7
Casuarinaceae	Casuarina obesa	Swamp Sheoak	7
Colletidae	Hylaeus (Sphaerhylaeus) globuliferus	Woolybush Bee	7
Campephagidae	Lalage (Lalage) tricolor	White-winged Triller	7
Malvaceae	Lasiopetalum membranaceum		7

Colletidae	Leioproctus (Colletopsis) contrarius	A Short-tongued Bee	7
Scincidae	Lerista distinguenda	South-western Orange-tailed Slider	7
Myrtaceae	Myrtaceae	Myrtle Family	7
Dasyuridae	Phascogale tapoatafa wambenger	Wambenger	7
Poaceae	Poa drummondiana	Knotted Poa	7
Cyperaceae	Schoenus sculptus	Gimlet Bog-rush	7
Proteaceae	Synaphea polypodioides		7
Orchidaceae	Thelymitra	Sun Orchids	7
Asparagaceae	Thysanotus tenellus	Grassy Fringe-lily	7
Hydatellaceae	Trithuria submersa	Trithuria	7
Leucobryaceae	Campylopus introflexus	Swan-neck Moss	6
Fabaceae	Dillwynia uncinata	Silky Parrot-pea	6
Cyperaceae	Eleocharis keigheryi	Keighery's Eleocharis	6
Ericaceae	Leucopogon		6
Cyperaceae	Machaerina arthrophylla	Baumea	6
Monarchidae	Myiagra (Seisura) inquieta	Restless Flycatcher	6
Celastraceae	Stackhousia	Candles	6
Juncaginaceae	Triglochin mucronata	Prickly Arrowgrass	6
Myrtaceae	Verticordia attenuata		6
Scolopacidae	Calidris (Calidris) tenuirostris	Great Knot	5
Cacatuidae	Calyptorhynchus (Calyptorhynchus) banksii naso	Forest Red-tailed Black-cockatoo	5
Cyperaceae	Chorizandra enodis	Black Bristle-sedge	5
Droseraceae	Drosera	Sundews	5
Hirundinidae	HIRUNDINIDAE	Asian House Martin	5
Helicarionidae	Helicarion castanea	A Helicarionid Land Snail	5
Campanulaceae	Lobelia		5
Orchidaceae	Microtis	Onion Orchids	5
Elapidae	Notechis scutatus	Tiger Snake	5
Menyanthaceae	Ornduffia submersa		5
Procellariidae	Pterodroma (Pterodroma) lessonii	White-headed Petrel	5
Stylidiaceae	Stylidium paludicola	Swamp Reed Triggerplant	5
Proteaceae	Synaphea petiolaris subsp. simplex		5
Cyperaceae	Tricostularia neesii var. neesii		5
Delphinidae	Tursiops aduncus	Long-beaked Bottle-nosed Dolphin	5
Migidae	Bertmainius opimus	Western Pygmy Trapdoor Spider	4
Cyperaceae	Carex tereticaulis	Poong'ort	4
Cyperaceae	Caustis sp. Boyanup (G.S.McCutcheon 1706)		4
Centrolepidaceae	Centrolepis glabra	Smooth Centrolepis	4
Fabaceae	Dillwynia sp. Capel (P.A.Jurjevich 1771)		4
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	4
Myrtaceae	Eucalyptus rudis subsp. cratyantha	Large-flowered Flooded Gum	4
Cyperaceae	Isolepis cernua	Nodding Club Rush	4
Petroicidae	Melanodryas (Melanodryas) cucullata	Hooded Robin	4
Scolopacidae	Numenius (Numenius) madagascariensis	Eastern Curlew	4
Orchidaceae	Orchidaceae	Orchids	4
Marsileaceae	Pilularia novae-hollandiae	Austral Pillwort	4
Cyperaceae	Schoenus benthamii		4
Macropodidae	Setonix brachyurus	Quokka	4
Asteraceae	Siloxerus multiflorus	Small Wrinklewort	4
Proteaceae	Synaphea sp. Pinjarra Plain (A.S.George 17182)		4
Orchidaceae	Thelymitra antennifera	Lemon Sun-orchid	4
Fabaceae	Acacia iteaphylla	Flinders Range Wattle	3
Acanthaceae	Avicennia marina subsp. australasica	Grey Mangrove	3
Migidae	Bertmainius tingle	Tingle Pygmy Trapdoor Spider	3
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	3
Orchidaceae	Caladenia huegelii	Grand Spider Orchid	3

Scolopacidae	Calidris (Calidris) canutus	Red Knot	3
Orchidaceae	Cyrtostylis robusta	Large Gnat-orchid	3
Myrtaceae	Darwinia whicherensis	Abba Bell	3
Poaceae	Deyeuxia quadriseta	Slender Reed Bent-grass	3
Falconidae	Falco (Hierofalco) peregrinus	Peregrine Falcon	3
Proteaceae	Franklandia triaristata	Lanoline Bush	3
Haematopodidae	Haematopus fuliginosus	Sooty Oystercatcher	3
Fabaceae	Jacksonia gracillima		3
Poaceae	Lachnagrostis filiformis	Common Blown-grass	3
Campanulaceae	Lobelia gibbosa	Tall Lobelia	3
Asparagaceae	Lomandra whicherensis		3
Portulacaceae	Montia australasica	White Purslane	3
Charadriidae	Pluvialis squatarola	Grey Plover	3
Chelidae	Pseudemydura umbrina	Western Swamp Turtle	3
Goodeniaceae	Scaevola	Fan-flowers	3
Proteaceae	Synaphea sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea	3
Phalangeridae	Trichosurus vulpecula	Common Brushtail Possum	3
Asteraceae	Angianthus drummondii		2
Procellariidae	Ardenna carneipes	Flesh-footed Shearwater	2
Poaceae	Austrostipa bronweniae		2
Poaceae	Austrostipa jacobsiana		2
Poaceae	Bromus arenarius	Sand Brome	2
Burhinidae	Burhinus (Burhinus) grallarius	Bush Stone-curlew	2
Orchidaceae	Caladenia filamentosa	Daddy Long-legs	2
Scolopacidae	Calidris (Ereunetes) ruficollis	Red-necked Stint	2
Apiaceae	Centella asiatica	Indian Pennywort	2
Orchidaceae	Cyrtostylis	Mosquito Orchids	2
Apiaceae	Daucus glochidiatus	Native Carrot	2
Diomedeidae	Diomedea exulans	Wandering Albatross	2
Orchidaceae	Diuris brevis	Short-nosed Donkey Orchid	2
Geotriidae	Geotria australis	Pouch Lamprey	2
Phrymaceae	Glossostigma diandrum	Glossostigma	2
Proteaceae	Grevillea rosieri		2
Haemodoraceae	Haemodorum	Bloodroot	2
Peramelidae	Isoodon fusciventer	Southwestern Brown Bandicoot	2
Campanulaceae	Isotoma scapigera	Salt Isotome	2
Ardeidae	Ixobrychus flavicollis	Black Bittern	2
Juncaceae	Juncus kraussii subsp. australiensis	Juncus	2
Ericaceae	Leucopogon sp. Busselton (D.Cooper 243)		2
Scolopacidae	Limosa lapponica	Bar-tailed Godwit	2
Pittosporaceae	Marianthus granulatus		2
Ziphiidae	Mesoplodon grayi	Gray's Beaked Whale	2
Orchidaceae	Microtis orbicularis	Swamp Onion-orchid	2
Scolopacidae	Numenius (Phaeopus) phaeopus	Whimbrel	2
Laridae	Onychoprion fuscatus	Sooty Tern	2
Geraniaceae	Pelargonium littorale	Native Pelargonium	2
Loganiaceae	Phyllangium divergens	Wiry Mitrewort	2
Asteraceae	Picris squarrosa	Squat Picris	2
Asteraceae	Podotheca angustifolia	Sticky Long-heads	2
Rallidae	Porzana (Porzana) fluminea	Australian Spotted Crake	2
Orchidaceae	Prasophyllum elatum	Tall Leek-orchid	2
Procellariidae	Pterodroma mollis	Soft-plumaged Petrel	2
Rhipiduridae	Rhipidura (Rhipidura) fuliginosa	New Zealand Fantail	2
Gentianaceae	Schenkia australis	Spike Centaury	2
Cyperaceae	Schoenus discifer	Tiny Bog-rush	2
Cyperaceae	Schoenus laevigatus	Short-leaf Bog-sedge	2

Anatidae	Stictonetta naevosa	Freckled Duck	2
Stylidiaceae	Stylidium ecorne	Foot Triggerplant	2
Diomedeidae	Thalassarche chlororhynchos	Atlantic Yellow-nosed Albatross	2
Diomedeidae	Thalassarche chrysostoma	Grey-headed Albatross	2
Diomedeidae	Thalassarche melanophris	Black-browed Albatross	2
Orchidaceae	Thelymitra variegata	Queen Of Sheba	2
Juncaginaceae	Triglochin trichophora	Torpedo Arrowgrass	2
Scolopacidae	Tringa (Glottis) nebularia	Common Greenshank	2
Typhaceae	Typha orientalis	Bullrush	2
Scolopacidae	Xenus cinereus	Terek Sandpiper	2
Fabaceae	Acacia drummondii subsp. affinis		1
Fabaceae	Acacia drummondii subsp. elegans		1
Acrocephalidae	Acrocephalus (Acrocephalus) australis	Australian Reed Warbler	1
Loganiaceae	Adelphacme minima		1
Euphorbiaceae	Adriana quadripartita	Rare Bitter-bush	1
Casuarinaceae	Allocasuarina ramosissima		1
Amaranthaceae	Alternanthera nodiflora	Common Joyweed	1
Cymodoceaceae	Amphibolis antarctica	Sea Nymph	1
Laridae	Anous stolidus	Common Noddy	1
Procellariidae	Ardenna pacifica	Wedge-tailed Shearwater	1
Poaceae	Aristida holathera var. holathera	Tall Kerosene Grass	1
Aspleniaceae	Asplenium aethiopicum	Shredded Spleenwort	1
Poaceae	Austrostipa hemipogon	Half-bearded Spear-grass	1
Balaenopteridae	Balaenoptera acutorostrata	Dwarf Minke Whale	1
Proteaceae	Banksia verticillata	Albany Banksia	1
Rutaceae	Boronia tetragona		1
Ardeidae	Botaurus poiciloptilus	Australasian Bittern	1
Portulacaceae	Calandrinia	Parakeelya	1
Dasypogonaceae	Calectasia cyanea	Blue Tinsel Lily	1
Scolopacidae	Calidris (Erolia) acuminata	Sharp-tailed Sandpiper	1
Scolopacidae	Calidris (Erolia) ferruginea	Curlew Sandpiper	1
Asparagaceae	Chamaescilla gibsonii		1
Myrtaceae	Chamelaucium sp. Yoongarillup (G.J.Keighery 3635)		1
Charadriidae	Charadrius (Charadrius) leschenaultii	Greater Sand Plover	1
Parastacidae	Cherax tenuimanus	Yabbies	1
Laridae	Chlidonias (Chlidonias) leucopterus	White-winged Black Tern	1
Accipitridae	Circus assimilis	Spotted Harrier	1
Polygalaceae	Comesperma polygaloides	Small Milkwort	1
Myrtaceae	Corymbia maculata	Spotted Gum	1
Scincidae	Ctenotus ora	Coastal Plains Skink	1
Orchidaceae	Cyanicula caerulea	Blue Fairy	1
Orchidaceae	Cyanicula	Blue Orchids	1
Cyperaceae	Cyperus laevigatus	Nutgrass	1
Cyperaceae	Cyperus		1
Dasyuridae	Dasyurus geoffroii fortis	Western Quoll	1
Fabaceae	Dillwynia dillwynioides		1
Orchidaceae	Diuris drummondii	Tall Donkey Orchid	1
Orchidaceae	Drakaea micrantha	Dwarf Hammer Orchid	1
Droseraceae	Drosera bulbigena	Midget Sundew	1
Elatinaceae	Elatine gratioloides	Waterwort	1
Orchidaceae	Eriochilus	Bunny Orchids	1
Convolvulaceae	Evolvulus alsinoides var. sericeus	Tropical Speedwell	1
Cyperaceae	Fimbristylis velata	Veiled Fringe-rush	1
Galaxiidae	Galaxiella nigrostriata	Blackstriped Dwarf Galaxias	1
Triakidae	Galeorhinus galeus	School Shark	1
Haloragaceae	Glischrocaryon angustifolium	Golden Pennants	1

Plantaginaceae	Gratiola pubescens	Glandular Brooklime	1
Lamiaceae	Hemiandra		1
Hesperiidae	Hesperilla flavescens	Yellowish Skipper	1
Asteraceae	Hyalosperma demissum	Dwarf Sunray	1
Peramelidae	Isoodon obesulus	Southern Brown Bandicoot	1
Proteaceae	Isopogon formosus subsp. dasylepis		1
Malvaceae	Lasiopetalum laxiflorum		1
Malvaceae	Lawrencia spicata	Salt Lawrencia	1
Santalaceae	Leptomeria furtiva		1
Limnodynastidae	Limnodynastes peronii	Striped Marsh Frog	1
Campanulaceae	Lobelia rhombifolia	Tufted Lobelia	1
Asparagaceae	Lomandra micrantha subsp. tuberculata	Small-flowered Mat-rush	1
Cyperaceae	Machaerina articulata	Jointed Twig-rush	1
Procellariidae	Macronectes giganteus	Southern Giant-petrel	1
Ziphiidae	Mesoplodon bowdoini	Andrews' Beaked Whale	1
Orchidaceae	Microtis quadrata	South Coast Mignonette Orchid	1
Orchidaceae	Microtis unifolia	Common Onion Orchid	1
Strigidae	Ninox (Hieracoglaux) connivens	Barking Owl	1
Oceanitidae	Oceanites oceanicus	Wilson's Storm-petrel	1
Loganiaceae	Orianthera wendyae		1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Oceanitidae	Pelagodroma marina	White-faced Storm-petrel	1
Polygonaceae	Persicaria decipiens	Slender Knotweed	1
Dasyuridae	Phascogale tapoatafa	Brush-tailed Phascogale	1
Lycopodiaceae	Phylloglossum drummondii	Pigmy Clubmoss	1
Placynthiaceae	Placynthium nigrum		1
Charadriidae	Pluvialis fulva	Pacific Golden Plover	1
Procellariidae	Puffinus (Puffinus) assimilis	Little Shearwater	1
Asteraceae	Pycnosorus globosus	Drumsticks	1
Asteraceae	Rhodanthe floribunda	Large White Sunray	1
Ricciaceae	Riccia		1
Poaceae	Rytidosperma setaceum	Small-flower Wallaby-grass	1
Cyperaceae	Schoenus loliaceus		1
Asteraceae	Senecio diaschides	Shingle Fireweed	1
Asteraceae	Sonchus hydrophilus	Native Sow-thistle	1
Laridae	Sterna (Sterna) dougallii	Roseate Tern	1
Stylidiaceae	Stylidium acuminatum subsp. acuminatum		1
Stylidiaceae	Stylidium longitubum	Jumping Jacks	1
Proteaceae	Synaphea sp. Serpentine (G.R.Brand 103)		1
Chenopodiaceae	Tecticornia indica subsp. bidens	Samphire	1
Orchidaceae	Thelymitra holmesii	Blue-star Sun-orchid	1
Charadriidae	Thinornis cucullatus	Hooded Plover	1
Asparagaceae	Thysanotus tuberosus	Common Fringe-lily	1
Hemerocallidaceae	Tricoryne		1
Juncaginaceae	Triglochin isingiana	Spurred Arrowgrass	1
Scolopacidae	Tringa (Heteroscelus) brevipes	Grey-tailed Tattler	1
Hydatellaceae	Trithuria australis		1
Tytonidae	Tyto novaehollandiae	Masked Owl	1
Lentibulariaceae	Utricularia violacea	Violet Bladderwort	1
Varanidae	Varanus rosenbergi	Heath Monitor	1
Myrtaceae	Verticordia densiflora var. pedunculata	Longstalked Featherflower	1
Convolvulaceae	Wilsonia backhousei	Narrow-leaf Wilsonia	1
Colchicaceae	Wurmbea sp. Cranbrook (A.R.Annels 3819)		1
Apiaceae	Xanthosia tasmanica	Southern Xanthosia	1

Lifeform - Angiosperms

Number of Angiosperms **0**

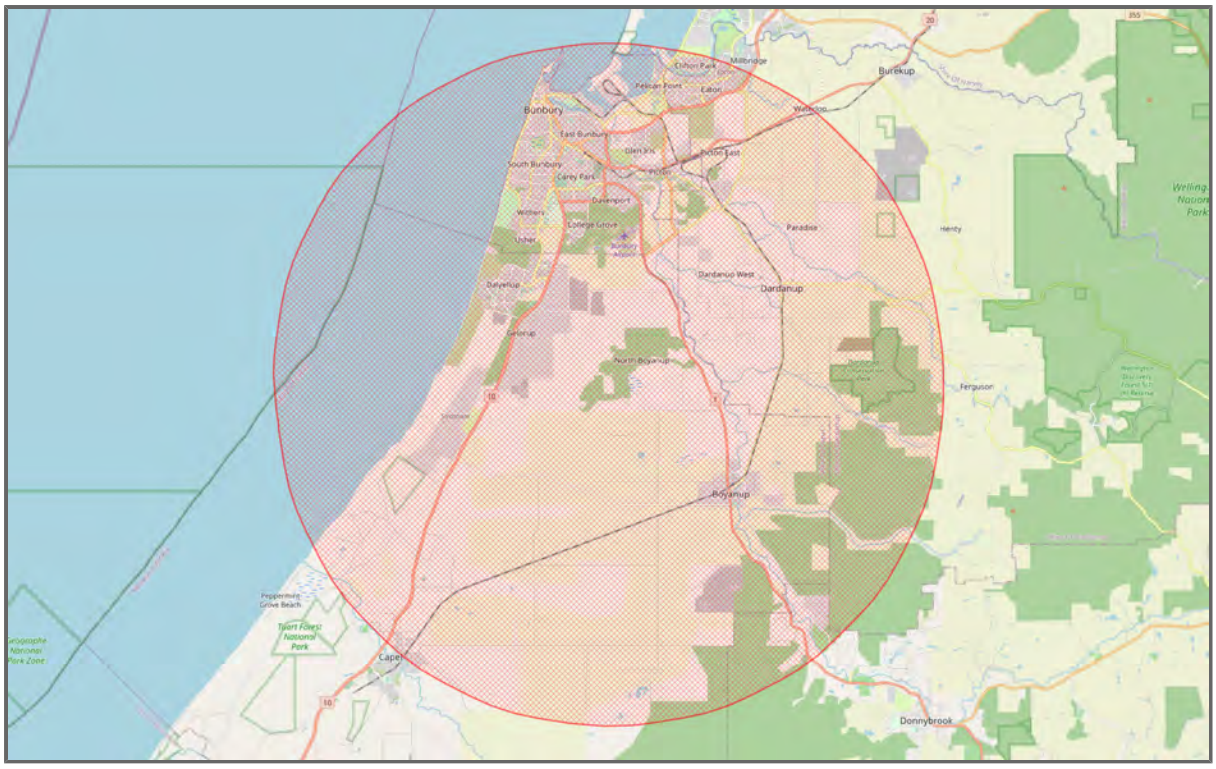

Figure 4 : Map of Lifeform - Angiosperms

Table 5: Lifeform - Angiosperms (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Bryophytes

Number of Bryophytes **43**

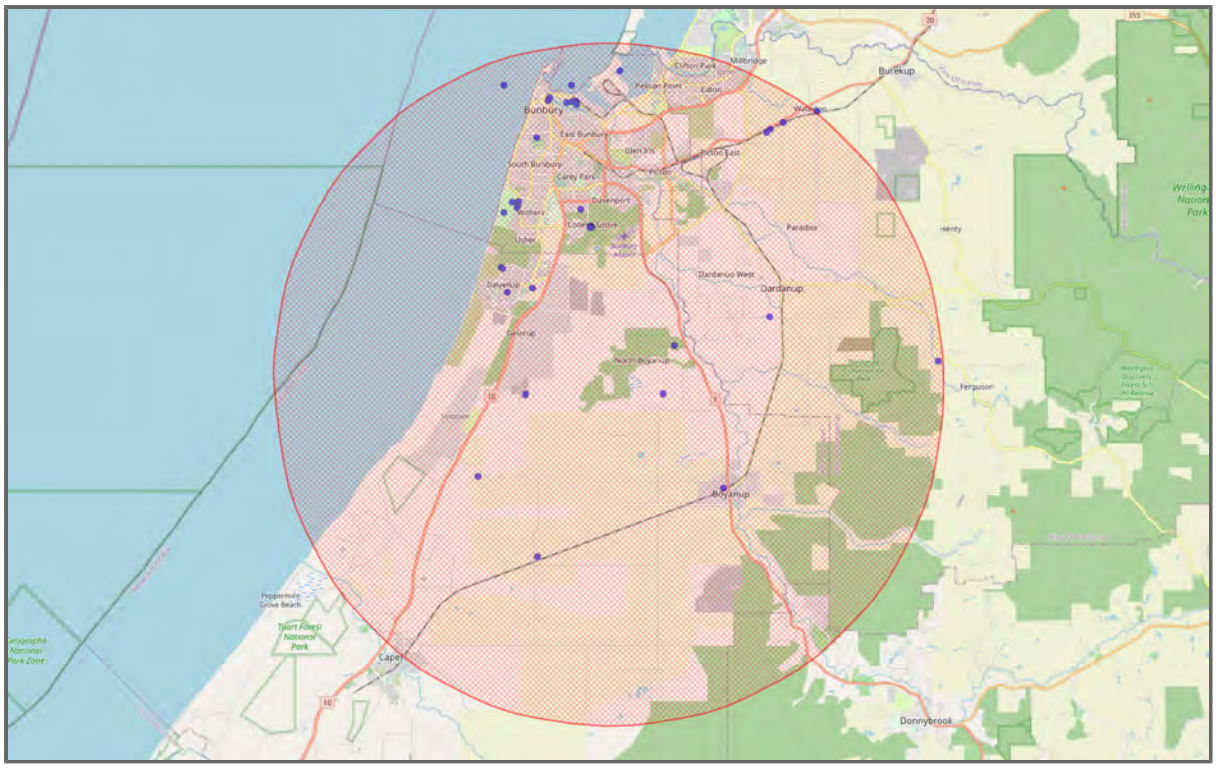

Figure 5 : Map of Lifeform - Bryophytes

Table 6: Lifeform - Bryophytes (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Leucobryaceae	Campylopus introflexus	Swan-neck Moss	7
Racopilaceae	Racopilum cuspidigerum var. convolutaceum	Common Carpet-moss	6
Pottiaceae	Barbula calycina	Common Beard-moss	5
Acrobolbaceae	Lethocolea pansa	Common Pouchwort	4
Pottiaceae	Pottiaceae		4
Racopilaceae	Racopilum cuspidigerum	Carpet Moss	4
	Bryophyta		3
Lophocoleaceae	Chiloscyphus semiteres	Common Crestwort	3
Pottiaceae	Triquetrella		3
	Anthocerotophyta		2
Fissidentaceae	Fissidens megalotis	Curly Pocket-moss	2
Fissidentaceae	Fissidens tenellus	Tiny Pocket-moss	2
Acrobolbaceae	Lethocolea		2
Sematophyllaceae	Sematophyllum homomallum	Bronze Signal-moss	2
Pottiaceae	Syntrichia		2
Thuidiaceae	Thuidiopsis sparsa	Weft Moss	2
Pottiaceae	Tortula muralis	Common Wall-moss	2
Pottiaceae	Tortula		2
Bryaceae	Bryum		1
Cephaloziellaceae	Cephaloziella exiliflora	Crimson Coalwort	1
Scapaniaceae	Chaetophyllopsis whiteleggei	Grey Woollywort	1
Pottiaceae	Didymodon australasiae	Beard Moss	1
Pottiaceae	Didymodon torquatus	Beard Moss	1
Fossombroniaceae	Fossombronia australis	Cellophane Frillwort	1
Fossombroniaceae	Fossombronia pusilla	Common Frillwort	1

Funariaceae	Funaria hygrometrica	Common Cord-moss	1
Bryaceae	Gemmabryum pachytheca	Acorn-fruited Thread-moss	1
Lepidoziaceae	Kurzia compacta	Fingerwort	1
Lophocoleaceae	Lophocolea		1
Aneuraceae	Riccardia crassa	Yellow Germanderwort	1
Ricciaceae	Riccia crystallina	Blue Crystalwort	1
Ricciaceae	Riccia		1
Bryaceae	Rosulabryum albolimbatum	Thread Moss	1
Bryaceae	Rosulabryum billarderii	Common Thread-moss	1
Sematophyllaceae	Sematophyllum subhumile var. contiguum	Pallid Signal-moss	1
Sematophyllaceae	Sematophyllum		1
Pottiaceae	Syntrichia antarctica	Bristly Screw-moss	1
Pottiaceae	Syntrichia papillosa	Screw Moss	1
Pottiaceae	Syntrichia ruralis		1
Splachnaceae	Tayloria octoblephara	Dung Moss	1
Thuidiaceae	Thuidiaceae		1
Pottiaceae	Tortella flavovirens		1
Orthotrichaceae	Zygodon intermedius	Common Zygodon	1

Lifeform - Dicots

Number of Dicots **1157**

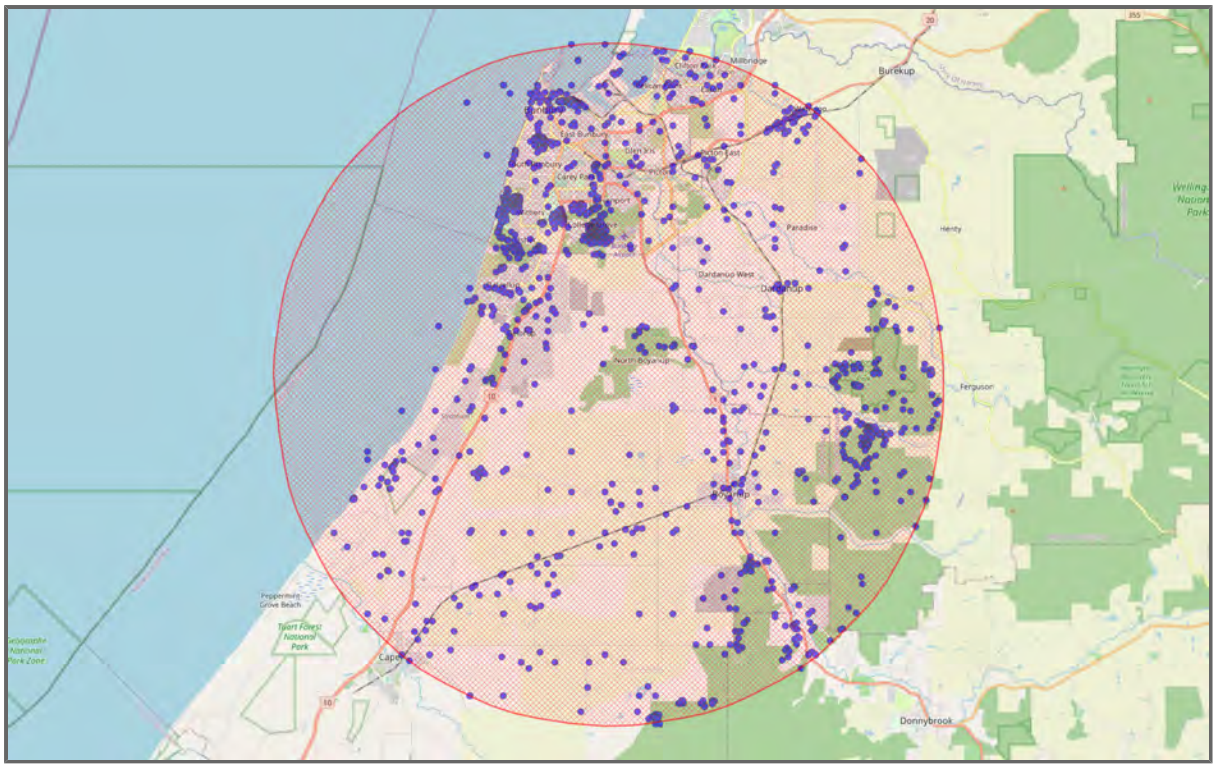

Figure 6 : Map of Lifeform - Dicots

Table 7: Lifeform - Dicots (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Dilleniaceae	Hibbertia hypericoides	Yellow Buttercups	96
Proteaceae	Banksia attenuata	Coast Banksia	80
Asteraceae	Hypochaeris glabra	Smooth Cat's Ear	74
Rutaceae	Philotheca spicata	Pepper And Salt	74
Fabaceae	Bossiaea eriocarpa	Common Brown Pea	70
Proteaceae	Xylomelum occidentale	Woody Pear	70
Proteaceae	Petrophile linearis	Pixie Mops	69
Goodeniaceae	Dampiera linearis	Wedge-leaved Dampiera	64
Myrtaceae	Hypocalymma robustum	Swan River Myrtle	61
Araliaceae	Trachymene pilosa	Dwarf Trachymene	61
Apiaceae	Xanthosia huegelii	Hairy Xanthosia	61
Fabaceae	Hardenbergia comptoniana	Western Australian Coral-pea	60
Fabaceae	Acacia pulchella	Prickly Moses	53
Fabaceae	Daviesia physodes		52
Rutaceae	Boronia dichotoma		51
Proteaceae	Adenanthos meisneri		49
Proteaceae	Banksia grandis	Giant Banksia	49
Proteaceae	Stirlingia latifolia	Blueboy	49
Myrtaceae	Eucalyptus marginata subsp. marginata	Jarrah	47
Dilleniaceae	Hibbertia diamesogenos		47
Myrtaceae	Melaleuca thymoides		47
Myrtaceae	Agonis flexuosa	Willow Myrtle	45
Fabaceae	Kennedia prostrata	Scarlet Runner	43
Dilleniaceae	Hibbertia vaginata		42
Loranthaceae	Nuytsia floribunda	Western Australian Christmas Tree	42

Acanthaceae	Avicennia marina	White Mangrove	40
Fabaceae	Gompholobium tomentosum	Hairy Yellow Pea	40
Fabaceae	Acacia stenoptera	Narrow-winged Wattle	39
Phyllanthaceae	Phyllanthus calycinus	Snowdrop Spurge	39
Droseraceae	Drosera drummondii		38
Fabaceae	Jacksonia horrida		38
Fabaceae	Kennedia coccinea	Coral Vine	38
Proteaceae	Banksia dallanneyi		37
Dilleniaceae	Hibbertia racemosa	Stalked Guinea Flower	37
Goodeniaceae	Lechenaultia biloba	Blue Leschenaultia	37
Fabaceae	Acacia extensa	Wiry Wattle	36
Myrtaceae	Corymbia calophylla	Marri	36
Dilleniaceae	Hibbertia stellaris	Guinea Flower	35
Fabaceae	Hovea trisperma	Common Hovea	35
Proteaceae	Persoonia longifolia	Snottygobble	35
Rutaceae	Boronia spathulata	Boronia	34
Lamiaceae	Hemiandra pungens	Snakebush	34
Myrtaceae	Hypocalymma angustifolium	White Myrtle	34
Elaeocarpaceae	Platytheca galioides		34
Stylidiaceae	Stylidium schoenoides	Cow Kicks	34
Ericaceae	Conostephium pendulum	Pearl Flower	32
Myrtaceae	Eucalyptus gomphocephala	Tuart	32
Dilleniaceae	Hibbertia cuneiformis	Cutleaf Hibbertia	31
Apiaceae	Platysace tenuissima		31
Goodeniaceae	Scaevola calliptera	Royal Robe	31
Droseraceae	Drosera pallida	Pale Rainbow	30
Fabaceae	Gompholobium polymorphum		30
Fabaceae	Jacksonia furcellata	Grey Stinkwood	30
Ericaceae	Leucopogon conostephioides		30
Stylidiaceae	Stylidium brunonianum	Pink Fountain Triggerplant	30
Stylidiaceae	Stylidium piliferum	Common Butterfly Triggerplant	30
Proteaceae	Isopogon sphaerocephalus	Drumstick Isopogon	29
Stylidiaceae	Levenhookia pusilla	Tiny Stylewort	29
Ericaceae	Astroloma pallidum	Kick Bush	28
Proteaceae	Banksia ilicifolia	Holly Leaved Banksia	28
Fabaceae	Eutaxia virgata		27
Asteraceae	Lagenophora huegelii	Coarse Bottle-daisy	27
Fabaceae	Acacia cochlearis	Rigid Wattle	26
Fabaceae	Acacia saligna	Golden Wreath Wattle	26
Fabaceae	Acacia willdenowiana	Grass Wattle	26
Rutaceae	Diplolaena dampieri	Southern Diplolaena	26
Dilleniaceae	Hibbertia cunninghamii		26
Ericaceae	Leucopogon propinquus		26
Myrtaceae	Melaleuca	Tea-tree	26
Lauraceae	Cassytha racemosa	Dodder Laurel	25
Proteaceae	Hakea cyclocarpa	Ramshorn	25
Fabaceae	Acacia applanata	Grass Wattle	24
Apiaceae	Daucus glochidiatus	Native Carrot	24
Fabaceae	Gastrolobium capitatum	Bacon And Eggs	24
Fabaceae	Gompholobium knightianum	Knight's Wedge-pea	24
Myrtaceae	Melaleuca rhaphiophylla	Swamp Paperbark	24
Myrtaceae	Paragonis grandiflora		24
Proteaceae	Banksia littoralis	Swamp Banksia	23
Myrtaceae	Corymbia haematoxylon	Mountain Marri	23
Droseraceae	Drosera erythrorhiza	Red Ink Sundew	23
Proteaceae	Hakea amplexicaulis	Prickly Hakea	23

Dilleniaceae	Hibbertia commutata		23
Asteraceae	Sonchus oleraceus	Common Sow-thistle	23
Rhamnaceae	Spyridium globulosum	Basket Bush	23
Celastraceae	Tripterococcus brunonis	Winged Stackhousia	23
Asteraceae	Ursinia anthemoides	Ursinia	23
Asteraceae	Asteridea pulverulenta	Common Bristle Daisy	22
Ericaceae	Astroloma ciliatum	Candle Cranberry	22
Myrtaceae	Calytrix flavescens	Summer Starflower	22
Proteaceae	Hakea lissocarpha	Honey Bush	22
Proteaceae	Hakea varia	Variable-leaved Hakea	22
Apiaceae	Platysace compressa	Tapeworm Plant	22
Elaeocarpaceae	Tetratheca hirsuta	Black-eyed Susan	22
Asteraceae	Olearia axillaris	Coast Daisy-bush	21
Proteaceae	Adenanthos barbiger	Hairy Glandflower	20
Lamiaceae	Genus		20
Rubiaceae	Opercularia apiciflora		20
Stylidiaceae	Stylidium junceum	Reed Triggerplant	20
Apiaceae	Xanthosia ciliata		20
Droseraceae	Drosera stolonifera	Leafy Sundew	19
Ericaceae	Leucopogon parviflorus	Coast Beard-heath	19
Stylidiaceae	Levenhookia stipitata	Common Stylewort	19
Myrtaceae	Eucalyptus marginata	Jarrah	18
Apiaceae	Homalosciadium homalocarpum		18
Ericaceae	Leucopogon capitellatus		18
Campanulaceae	Lobelia tenuior	Slender Lobelia	18
Loganiaceae	Orianthera serpyllifolia subsp. angustifolia		18
Caryophyllaceae	Petrorhagia dubia	Velvet Pink	18
Stylidiaceae	Stylidium amoenum	Lovely Triggerplant	18
Stylidiaceae	Stylidium	Trigger-plants	18
Casuarinaceae	Allocasuarina humilis	Dwarf Sheoak	17
Droseraceae	Drosera marchantii	Bridal Rainbow	17
Fabaceae	Gompholobium capitatum	Yellow Pea	17
Fabaceae	Gompholobium preissii		17
Fabaceae	Hovea trisperma var. grandiflora		17
Fabaceae	Hovea trisperma var. trisperma	Common Hovea	17
Violaceae	Hybanthus calycinus	Wild Violet	17
Myrtaceae	Kunzea glabrescens	Spearwood	17
Ericaceae	Lysinema ciliatum	Curry Flower	17
Orobanchaceae	Orobanche minor	Lesser Broomrape	17
Myrtaceae	Pericalymma ellipticum	Swamp Teatree	17
Loganiaceae	Phyllangium paradoxum	Wiry Mitrewort	17
Thymelaeaceae	Pimelea rosea subsp. rosea	Rose Banjine	17
Fabaceae	Pultenaea skinneri	Skinner's Pea	17
Celastraceae	Stackhousia monogyna	Creamy Candles	17
Stylidiaceae	Stylidium calcaratum	Spurred Trigger-plant	17
Ericaceae	Andersonia caerulea	Foxtails	16
Myrtaceae	Eucalyptus	Studley Park Gum	16
Dilleniaceae	Hibbertia huegelii		16
Euphorbiaceae	Monotaxis occidentalis		16
Stylidiaceae	Stylidium repens	Matted Triggerplant	16
Ericaceae	Styphelia tenuiflora	Common Pinheath	16
Fabaceae	Acacia lateriticola		15
Fabaceae	Acacia mooreana		15
Fabaceae	Acacia pulchella var. glaberrima	Western Prickly Moses	15
Proteaceae	Adenanthos obovatus	Basket Flower	15
Pittosporaceae	Billardiera variifolia		15

Fabaceae	Bossiaea ornata	Broad-leaved Brown Pea	15
Goodeniaceae	Goodenia eatoniana		15
Dilleniaceae	Hibbertia hypericoides subsp. hypericoides	Yellow Buttercups	15
Fabaceae	Hovea chorizemifolia	Holly-leaved Hovea	15
Myrtaceae	Melaleuca pauciflora		15
Santalaceae	Santalum acuminatum	Sweet Quandong	15
Goodeniaceae	Scaevola crassifolia	Cushion Fanflower	15
Proteaceae	Synaphea petiolaris	Synaphea	15
Elaeocarpaceae	Tetratheca hirsuta subsp. viminea		15
Campanulaceae	Wahlenbergia preissii		15
Fabaceae	Acacia nervosa	Rib Wattle	14
Fabaceae	Acacia varia var. varia		14
Fabaceae	Acacia	Wattle	14
Apocynaceae	Alyxia buxifolia	Sea Box	14
Myrtaceae	Calothamnus sanguineus	Silky-leaved Bloodflower	14
Polygalaceae	Comesperma virgatum	Milkwort	14
Droseraceae	Drosera collina		14
Droseraceae	Drosera gigantea	Giant Sundew	14
Fabaceae	Gompholobium confertum		14
Proteaceae	Hakea stenocarpa		14
Araliaceae	Hydrocotyle bonariensis	Pennywort	14
Myrtaceae	Kunzea micrantha subsp. micrantha		14
Myrtaceae	Kunzea recurva		14
Myrtaceae	Melaleuca cuticularis	Western Swamp-paperbark	14
Myrtaceae	Melaleuca lateritia	Robin Redbreast Bush	14
Oxalidaceae	Oxalis perennans	Native Sorrel	14
Proteaceae	Persoonia saccata	Snottygobble	14
Asteraceae	Siloxerus humifusus	Procumbent Siloxerus	14
Fabaceae	Sphaerolobium medium		14
Proteaceae	Synaphea odocoileops		14
Fabaceae	Acacia cyclops	Western Coastal Wattle	13
Apiaceae	Actinotus glomeratus		13
Acanthaceae	Avicennia marina subsp. marina		13
Fabaceae	Kennedia carinata		13
Myrtaceae	Melaleuca teretifolia	Banbar	13
Asteraceae	Olearia elaeophila		13
Stylidiaceae	Stylidium perplexum		13
Fabaceae	Acacia huegelii	Huegel's Wattle	12
Asteraceae	Arctotheca calendula	Cape Weed	12
Aizoaceae	Carpobrotus virescens	Pigface	12
Lauraceae	Cassytha glabella	Slender Dodder-laurel	12
Asteraceae	Cotula turbinata	Ferny Cotula	12
Asteraceae	Craspedia variabilis	Common Billy-buttons	12
Fabaceae	Daviesia divaricata subsp. divaricata		12
Fabaceae	Daviesia preissii		12
Fabaceae	Gompholobium marginatum		12
Proteaceae	Grevillea quercifolia	Oak-leaf Grevillea	12
Dilleniaceae	Hibbertia amplexicaulis		12
Fabaceae	Labichea punctata	Lance-leaved Cassia	12
Primulaceae	Lysimachia arvensis	Pimpernel	12
Pittosporaceae	Marianthus tenuis		12
Myrtaceae	Melaleuca preissiana	Moonah	12
Stylidiaceae	Stylidium utricularioides	Pink Fan Triggerplant	12
Lentibulariaceae	Utricularia multifida	Pink Petticoats	12
Proteaceae	Banksia bipinnatifida subsp. multifida		11
Droseraceae	Drosera paleacea	Dwarf Sundew	11

Campanulaceae	Isotoma hypocrateriformis	Woodbridge Poison	11
Ericaceae	Leucopogon glabellus		11
Ericaceae	Lysinema pentapetalum	Curry Flower	11
Urticaceae	Parietaria debilis	Shade Pellitory	11
Asteraceae	Podolepis gracilis	Slender Podolepis	11
Asteraceae	Rhodanthe citrina	Pale Immortelle	11
Apiaceae	Schoenolaena juncea		11
Malvaceae	Thomasia grandiflora	Large-flowered Thomasia	11
Fabaceae	Acacia incurva		10
Fabaceae	Acacia pulchella var. pulchella	Prickly Moses	10
Fabaceae	Acacia semitrullata		10
Myrtaceae	Babingtonia camphorosmae		10
Orobanchaceae	Bellardia viscosa	Yellow Bartsia	10
Rutaceae	Boronia fastigiata	Bushy Boronia	10
Fabaceae	Bossiaea angustifolia		10
Fabaceae	Chorizema cordatum	Flame Pea	10
Crassulaceae	Crassula colorata var. colorata	Dense Crassula	10
Droseraceae	Drosera glanduligera	Scarlet Sundew	10
Frankeniaceae	Frankenia pauciflora	Southern Sea-heath	10
Fabaceae	Gompholobium shuttleworthii		10
Haloragaceae	Gonocarpus paniculatus		10
Proteaceae	Grevillea pilulifera	Woolly-flowered Grevillea	10
Proteaceae	Grevillea pulchella	Beautiful Grevillea	10
Ericaceae	Leucopogon pulchellus	Beard Heath	10
Fabaceae	Lotus angustissimus	Slender Bird's-foot Trefoil	10
Olacaceae	Olax benthamiana		10
Oxalidaceae	Oxalis glabra	Finger-leaf Wood-sorrel	10
Thymelaeaceae	Pimelea lanata		10
Asteraceae	Quinetia urvillei	Quinetia	10
Chenopodiaceae	Salicornia quinqueflora	Beaded Glasswort	10
Primulaceae	Samolus repens	Creeping Brookweed	10
Proteaceae	Synaphea hians		10
Fabaceae	Templetonia retusa	Cockies Tongue	10
Asteraceae	Trichocline spathulata	Native Gerbera	10
Fabaceae	Trifolium campestre var. campestre	Hop Clover	10
Fabaceae	Vicia sativa	Common Vetch	10
Casuarinaceae	Allocasuarina fraseriana	Western Sheoak	9
Goodeniaceae	Dampiera		9
Fabaceae	Daviesia angulata		9
Brassicaceae	Diplotaxis tenuifolia	Sand Rocket	9
Droseraceae	Drosera menziesii	Pink Rainbow	9
Droseraceae	Drosera porrecta	Leafy Sundew	9
Euphorbiaceae	Euphorbia paralias	Sea Spurge	9
Fabaceae	Gastrolobium praemorsum		9
Fabaceae	Gastrolobium whicherense		9
Geraniaceae	Geranium retrorsum	Grassland Crane's-bill	9
Dilleniaceae	Hibbertia acerosa	Needle Leaved Guinea Flower	9
Fabaceae	Isotropis cuneifolia subsp. cuneifolia	Granny Bonnets	9
Ericaceae	Leucopogon		9
Fabaceae	Melilotus indicus	Sweet Melilot	9
Asteraceae	Millotia tenuifolia	Soft Millotia	9
Haloragaceae	Myriophyllum crispatum	Upright Milfoil	9
Thymelaeaceae	Pimelea imbricata var. piligera		9
Thymelaeaceae	Pimelea preissii		9
Asteraceae	Pogonolepis stricta		9
Rosaceae	Pyrus communis	Pear	9

Chenopodiaceae	Rhagodia baccata subsp. baccata	Berry Saltbush	9
Stylidiaceae	Stylidium megacarpum		9
Stylidiaceae	Stylidium neurophyllum	Fan-leaved Triggerplant	9
Chenopodiaceae	Suaeda australis	Austral Seablite	9
Proteaceae	Synaphea gracillima		9
Fabaceae	Viminaria juncea	Native Broom	9
Myrtaceae	Agonis flexuosa var. flexuosa	Willow Myrtle	8
Fabaceae	Aotus gracillima		8
Myrtaceae	Calothamnus lateralis		8
Lauraceae	Cassytha	Dodder-laurel	8
Caryophyllaceae	Cerastium glomeratum	Common Mouse-ear Chickweed	8
Asteraceae	Craspedia sp. Yalgorup National Park (G.J.Keighery 14449)		8
Droseraceae	Drosera macrantha	Bridal Rainbow	8
Droseraceae	Drosera micrantha		8
Droseraceae	Drosera rosulata		8
Myrtaceae	Eremaea pauciflora var. pauciflora		8
Santalaceae	Exocarpos sparteus	Broombush	8
Geraniaceae	Geranium molle	Soft Geranium	8
Proteaceae	Grevillea trifida		8
Dilleniaceae	Hibbertia glomerata		8
Dilleniaceae	Hibbertia	Guinea Flowers	8
Violaceae	Hybanthus floribundus	Shrub Spade Flower	8
Araliaceae	Hydrocotyle alata		8
Araliaceae	Hydrocotyle diantha	Kangaroo Island Pennywort	8
Araliaceae	Hydrocotyle intertexta	Buttercup Pennywort	8
Fabaceae	Isotropis cuneifolia	Granny Bonnets	8
Bignoniaceae	Jacaranda mimosifolia	Jacaranda	8
Fabaceae	Jacksonia		8
Ericaceae	Leucopogon racemulosus		8
Myrtaceae	Melaleuca lanceolata	Dryland Tea-tree	8
Geraniaceae	Pelargonium capitatum	Rose-scented Pelargonium	8
Apiaceae	Pentapeltis peltigera		8
Asteraceae	Pithocarpa cordata	Tangle Daisy	8
Plantaginaceae	Plantago lanceolata	Ribwort	8
Apiaceae	Platysace filiformis		8
Chenopodiaceae	Rhagodia baccata	Berry Saltbush	8
Solanaceae	Solanum nigrum	Black Nightshade	8
Ericaceae	Sphenotoma capitata		8
Stylidiaceae	Stylidium ciliatum	Golden Triggerplant	8
Stylidiaceae	Stylidium thesioides	Delicate Triggerplant	8
Asteraceae	Waitzia suaveolens	Fragrant Waitzia	8
Convolvulaceae	Wilsonia humilis	Silky Wilsonia	8
Fabaceae	Acacia flagelliformis		7
Fabaceae	Acacia lasiocarpa		7
Fabaceae	Acacia urophylla	Pointed Leaved Acacia	7
Ericaceae	Andersonia heterophylla		7
Asteraceae	Arctotheca populifolia	Beach Daisy	7
Portulacaceae	Calandrinia liniflora	Parakeelya	7
Casuarinaceae	Casuarina obesa	Swamp Sheoak	7
Caprifoliaceae	Centranthus macrosiphon	Pretty Betsy	7
Myrtaceae	Chamelaucium uncinatum	Geraldton Wax	7
Polygalaceae	Comesperma volubile	Love Creeper	7
Fabaceae	Daviesia decurrens	Thorny Bitter-pea	7
Droseraceae	Drosera macrantha subsp. macrantha		7
Myrtaceae	Eucalyptus rudis	Flooded Gum	7
Papaveraceae	Fumaria capreolata	White-flowered Fumitory	7

Fabaceae	Gastrolobium		7
Lamiaceae	Hemigenia humilis		7
Asteraceae	Hyalosperma cotula		7
Malvaceae	Lasiopetalum membranaceum		7
Santalaceae	Leptomeria cunninghamii		7
Ericaceae	Leucopogon sp. Margaret River (J.Scott 207)		7
Myrtaceae	Melaleuca parviceps		7
Myrtaceae	Myrtaceae	Myrtle Family	7
Loganiaceae	Orianthera serpyllifolia		7
Fabaceae	Ornithopus compressus	Neat Bird's-foot	7
Thymelaeaceae	Pimelea rosea	Rose Banjine	7
Phyllanthaceae	Poranthera microphylla	Small Poranthera	7
Proteaceae	Synaphea floribunda		7
Proteaceae	Synaphea petiolaris subsp. petiolaris		7
Proteaceae	Synaphea polypodioides		7
Proteaceae	Synaphea spinulosa subsp. spinulosa		7
Proteaceae	Synaphea		7
Myrtaceae	Taxandria linearifolia		7
Hydatellaceae	Trithuria submersa	Trithuria	7
Apiaceae	Xanthosia candida		7
Fabaceae	Acacia tetragonocarpa		6
Euphorbiaceae	Amperea ericoides		6
Myrtaceae	Astartea		6
Proteaceae	Banksia sessilis		6
Asteraceae	Brachyscome iberidifolia	Brachyscome	6
Brassicaceae	Cakile maritima	Sea Rocket	6
Plantaginaceae	Callitriche stagnalis	Common Water-starwort	6
Lauraceae	Cassytha racemosa f. racemosa		6
Casuarinaceae	Casuarinaceae	Sheoak	6
Fabaceae	Dillwynia uncinata	Silky Parrot-pea	6
Chenopodiaceae	Dysphania ambrosioides	Mexican Tea	6
Apiaceae	Eryngium pinnatifidum	Blue Devils	6
Rubiaceae	Galium murale	Small Bedstraw	6
Goodeniaceae	Goodenia micrantha		6
Lamiaceae	Hemigenia incana	Silky Hemigenia	6
Ericaceae	Leucopogon oxycedrus		6
Campanulaceae	Lobelia anceps	Angled Lobelia	6
Fabaceae	Lotus subbiflorus	Hairy Bird's-foot Trefoil	6
Pittosporaceae	Marianthus candidus	White Marianthus	6
Myrtaceae	Melaleuca trichophylla		6
Myrtaceae	Melaleuca viminea subsp. viminea	Weeping Honey-myrtle	6
Onagraceae	Oenothera drummondii	Beach Evening Primrose	6
Rubiaceae	Opercularia hispidula	Hispid Stinkweed	6
Menyanthaceae	Ornduffia parnassifolia		6
Geraniaceae	Pelargonium littorale	Native Pelargonium	6
Myrtaceae	Pericalymma ellipticum var. floridum		6
Thymelaeaceae	Pimelea	Rice Flowers	6
Asteraceae	Senecio pinnatifolius	Variable Groundsel	6
Caryophyllaceae	Silene gallica	French Catchfly	6
Celastraceae	Stackhousia	Candles	6
Stylidiaceae	Stylidium carnosum	Fleshy-leaved Triggerplant	6
Stylidiaceae	Stylidium spathulatum	Creamy Triggerplant	6
Aizoaceae	Tetragonia decumbens	Sea Spinach	6
Elaeocarpaceae	Tetratheca hispidissima		6
Fabaceae	Trifolium subterraneum	Subterranean Clover	6
Hydatellaceae	Trithuria bibracteata		6

Goodeniaceae	Velleia trinervis		6
Myrtaceae	Verticordia attenuata		6
Campanulaceae	Wahlenbergia capensis	Cape Bluebell	6
Fabaceae	Acacia obovata		5
Fabaceae	Acacia rostellifera	Summer-scented Wattle	5
Fabaceae	Acacia teretifolia		5
Asteraceae	Angianthus preissianus	Salt Angianthus	5
Solanaceae	Anthocercis littorea	Yellow Tailflower	5
Asteraceae	Asteraceae	Daisy	5
Proteaceae	Banksia nivea		5
Orobanchaceae	Bellardia trixago	Bellardia	5
Rutaceae	Boronia defoliata		5
Myrtaceae	Calytrix angulata	Yellow Starflower	5
Aizoaceae	Carpobrotus	Pigface	5
Casuarinaceae	Casuarina glauca	Swamp Oak	5
Asteraceae	Chondrilla juncea	Skeleton Weed	5
Gentianaceae	Cicendia filiformis	Slender Cicendia	5
Asteraceae	Cotula coronopifolia	Water Buttons	5
Goodeniaceae	Dampiera alata	Winged-stemmed Dampiera	5
Goodeniaceae	Dampiera pedunculata		5
Fabaceae	Dipogon lignosus	Common Dolichos Pea	5
Droseraceae	Drosera indumenta		5
Droseraceae	Drosera	Sundews	5
Scrophulariaceae	Eremophila glabra subsp. albicans	Tar Bush	5
Ericaceae	Ericaceae	Austral Heaths	5
Geraniaceae	Erodium botrys	Big Herons-bill	5
Myrtaceae	Eucalyptus rudis subsp. rudis	Flooded Gum	5
Proteaceae	Grevillea bipinnatifida	Fuchsia Grevillea	5
Myrtaceae	Kunzea baxteri	Crimson Kunzea	5
Goodeniaceae	Lechenaultia expansa		5
Goodeniaceae	Lechenaultia floribunda	Free-flowering Leschenaultia	5
Asteraceae	Leucophyta brownii	Coast Cushion Bush	5
Campanulaceae	Lobelia		5
Primulaceae	Lysimachia loeflingii		5
Ericaceae	Lysinema		5
Euphorbiaceae	Monotaxis grandiflora	Diamond Of The Desert	5
Onagraceae	Oenothera mollissima		5
Rubiaceae	Opercularia vaginata	Dog Weed	5
Menyanthaceae	Ornduffia submersa		5
Myrtaceae	Pericalymma ellipticum var. ellipticum		5
Proteaceae	Petrophile striata		5
Thymelaeaceae	Pimelea sulphurea	Yellow Banjine	5
Proteaceae	Proteaceae	Banksia	5
Fabaceae	Pultenaea radiata		5
Goodeniaceae	Scaevola phlebopetala	Velvet Fanflower	5
Goodeniaceae	Scaevola striata	Royal Robe	5
Asteraceae	Senecio depressicola	Senecio	5
Asteraceae	Senecio multicaulis subsp. multicaulis		5
Fabaceae	Sphaerolobium linophyllum		5
Picrodendraceae	Stachystemon virgatus		5
Stylidiaceae	Stylidium amoenum var. amoenum		5
Stylidiaceae	Stylidium paludicola	Swamp Reed Triggerplant	5
Proteaceae	Synaphea petiolaris subsp. simplex		5
Proteaceae	Synaphea whicherensis		5
Fabaceae	Trifolium campestre	Hop Clover	5
Fabaceae	Trifolium cernuum	Drooping-flower Clover	5

Fabaceae	Trifolium dubium	Suckling Clover	5
Asteraceae	Vellereophyton dealbatum	White Cudweed	5
Plantaginaceae	Veronica arvensis	Wall Speedwell	5
Asteraceae	Waitzia suaveolens var. suaveolens		5
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	4
Fabaceae	Acacia vestita	Hairy Wattle	4
Aizoaceae	Aizoon pubescens	Galenia	4
Ericaceae	Andersonia involucrata		4
Goodeniaceae	Anthotium junciforme	Rush-like Anthotium	4
Apiaceae	Apium prostratum var. prostratum	Native Celery	4
Myrtaceae	Astartea affinis	West-coast Astartea	4
Chenopodiaceae	Atriplex cinerea	Coast Saltbush	4
Proteaceae	Banksia armata var. armata		4
Proteaceae	Banksia	Banksia	4
Rutaceae	Boronia		4
Fabaceae	Bossiaea pulchella		4
Myrtaceae	Calothamnus quadrifidus	Common Net Bush	4
Euphorbiaceae	Calycopeplus oligandrus		4
Myrtaceae	Calytrix fraseri	Pink Summer Calytrix	4
Casuarinaceae	Casuarina cunninghamiana	River She-oak	4
Ranunculaceae	Clematis pubescens	Common Clematis	4
Asteraceae	Craspedia	Billy Buttons	4
Myrtaceae	Darwinia citriodora	Lemon-scented Darwinia	4
Fabaceae	Daviesia decurrens subsp. decurrens		4
Fabaceae	Daviesia divaricata	Marno	4
Fabaceae	Daviesia hakeoides subsp. hakeoides		4
Fabaceae	Dillwynia sp. Capel (P.A.Jurjevich 1771)		4
Sapindaceae	Dodonaea aptera	Coast Hopbush	4
Droseraceae	Drosera pulchella	Pretty Sundew	4
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	4
Asteraceae	Erigeron sumatrensis	Tall Fleabane	4
Myrtaceae	Eucalyptus rudis subsp. cratyantha	Large-flowered Flooded Gum	4
Santalaceae	Exocarpos odoratus	Scented Ballart	4
Fabaceae	Genista linifolia	Flax-leaf Broom	4
Fabaceae	Gompholobium	Wedge Peas	4
Goodeniaceae	Goodenia pulchella		4
Proteaceae	Grevillea diversifolia subsp. diversifolia		4
Proteaceae	Grevillea pulchella subsp. ascendens		4
Proteaceae	Grevillea vestita subsp. vestita		4
Proteaceae	Hakea prostrata	Harsh Hakea	4
Proteaceae	Hakea sulcata	Furrowed Hakea	4
Asteraceae	Hyalosperma pusillum		4
Araliaceae	Hydrocotyle callicarpa	Tiny Pennywort	4
Fabaceae	Jacksonia sternbergiana	Stinkwood	4
Fabaceae	Kennedia coccinea subsp. coccinea		4
Myrtaceae	Kunzea micrantha		4
Malvaceae	Lagunaria patersonia	Sally Wood	4
Ericaceae	Leucopogon australis	Spike Beard-heath	4
Ericaceae	Leucopogon verticillatus	Tassel Flower	4
Menyanthaceae	Liparophyllum latifolium		4
Campanulaceae	Lobelia rhytidosperma	Wrinkle-seeded Lobelia	4
Fabaceae	Lupinus cosentinii	Sandplain Lupin	4
Fabaceae	Medicago polymorpha	Spineless Burr Medic	4
Myrtaceae	Melaleuca armillaris	Giant Honey Myrtle	4
Myrtaceae	Melaleuca incana subsp. incana	Grey Honey-myrtle	4
Fabaceae	Melilotus siculus	Messinia	4

Lamiaceae	Mentha pulegium	Pennyroyal	4
Asteraceae	Millotia tenuifolia var. tenuifolia	Soft Millotia	4
Campanulaceae	Monopsis debilis	Pansy Lobelia	4
Menyanthaceae	Ornduffia albiflora		4
Oxalidaceae	Oxalis pes-caprae	Soursob	4
Orobanchaceae	Parentucellia latifolia	Red Bartsia	4
Polygonaceae	Persicaria prostrata	Creeping Knotweed	4
Proteaceae	Petrophile	Conesticks	4
Amaranthaceae	Ptilotus manglesii	Pom Poms	4
Ranunculaceae	Ranunculus colonorum	Common Buttercup	4
Polygonaceae	Rumex crispus	Curled Dock	4
Chenopodiaceae	Salicornia	Samphires	4
Primulaceae	Samolus junceus		4
Asteraceae	Siloxerus multiflorus	Small Wrinklewort	4
Fabaceae	Sphaerolobium scabriusculum		4
Fabaceae	Sphaerolobium vimineum	Leafless Globe-pea	4
Picrodendraceae	Stachystemon vermicularis		4
Caryophyllaceae	Stellaria media	Chickweed	4
Brassicaceae	Stenopetalum gracile		4
Stylidiaceae	Stylidium diversifolium	Touch-me-not	4
Proteaceae	Synaphea sp. Pinjarra Plain (A.S.George 17182)		4
Chenopodiaceae	Tecticornia halocnemoides	Red Glasswort	4
Fabaceae	Vicia sativa subsp. nigra	Narrow-leaved Vetch	4
Fabaceae	Acacia alata var. alata		3
Fabaceae	Acacia alata	Winged Wattle	3
Fabaceae	Acacia browniana	Brown's Wattle	3
Fabaceae	Acacia iteaphylla	Flinders Range Wattle	3
Fabaceae	Acacia preissiana		3
Proteaceae	Adenanthos		3
Amaranthaceae	Amaranthus albus	Stiff Tumbleweed	3
Myrtaceae	Astartea fascicularis	Recherche Astartea	3
Myrtaceae	Astartea scoparia	Common Astartea	3
Chenopodiaceae	Atriplex isatidea	Coastal Saltbush	3
Acanthaceae	Avicennia marina subsp. australasica	Grey Mangrove	3
Proteaceae	Banksia bipinnatifida		3
Rutaceae	Boronia crenulata	Aniseed Boronia	3
Rutaceae	Boronia denticulata	Toothed-leaved Boronia	3
Fabaceae	Bossiaea aquifolium subsp. aquifolium		3
Fabaceae	Bossiaea rufa		3
Gentianaceae	Centaurium erythraea	Common Centaury	3
Chenopodiaceae	Chenopodiaceae	Saltbush	3
Chenopodiaceae	Chenopodium album	Fat Hen	3
Fabaceae	Chorizema rhombeum		3
Caryophyllaceae	Corrigiola litoralis	Strapwort	3
Crassulaceae	Crassula colorata	Dense Stonecrop	3
Goodeniaceae	Dampiera trigona	Angled-stem Dampiera	3
Myrtaceae	Darwinia whicherensis	Abba Bell	3
Fabaceae	Daviesia rhombifolia		3
Convolvulaceae	Dichondra repens	Kidney-weed	3
Scrophulariaceae	Dischisma arenarium	Sand Dichisma	3
Droseraceae	Drosera platystigma	Black-eyed Sundew	3
Droseraceae	Drosera sp. Branched styles (S.C.Coffey 193)		3
Asteraceae	Erigeron bonariensis	Flaxleaf Fleabane	3
Myrtaceae	Eucalyptus camaldulensis	Red Gum	3
Fabaceae	Euchilopsis linearis	Swamp Pea	3
Fabaceae	Fabaceae		3

Proteaceae	Franklandia triaristata	Lanoline Bush	3
Fabaceae	Gastrolobium cuneatum	River Poison	3
Asteraceae	Gazania	Gazania	3
Geraniaceae	Geranium dissectum	Cut-leaf Geranium	3
Apocynaceae	Gomphocarpus fruticosus	Narrow-leaved Cotton Bush	3
Proteaceae	Grevillea bipinnatifida subsp. bipinnatifida		3
Proteaceae	Grevillea manglesioides subsp. manglesioides		3
Proteaceae	Grevillea		3
Proteaceae	Hakea ceratophylla	Horned Leaf Hakea	3
Proteaceae	Hakea	Needle Bushes	3
Boraginaceae	Heliotropium europaeum	Common Heliotrope	3
Lamiaceae	Hemiphora bartlingii		3
Dilleniaceae	Hibbertia aurea		3
Dilleniaceae	Hibbertia subvaginata		3
Violaceae	Hybanthus floribundus subsp. floribundus	Shrub Violet	3
Violaceae	Hybanthus		3
Asteraceae	Hypochaeris radicata	Cats-ear	3
Fabaceae	Jacksonia gracillima		3
Fabaceae	Jacksonia lehmannii		3
Myrtaceae	Kunzea rostrata		3
Proteaceae	Lambertia multiflora	Many-flowered Honeysuckle	3
Lamiaceae	Lavandula stoechas subsp. stoechas	Topped Lavender	3
Ericaceae	Leucopogon cordatus		3
Ericaceae	Leucopogon obovatus		3
Linaceae	Linum trigynum	French Flax	3
Campanulaceae	Lobelia gibbosa	Tall Lobelia	3
Brassicaceae	Lobularia maritima	Sweet Alyssum	3
Fabaceae	Lupinus angustifolius	Narrow-leaf Lupin	3
Myrtaceae	Melaleuca systena	Coastal Honeymyrtle	3
Asteraceae	Millotia myosotidifolia	Broad-leaf Millotia	3
Caryophyllaceae	Moenchia erecta	Erect Chickweed	3
Portulacaceae	Montia australasica	White Purslane	3
Nymphaeaceae	Nymphaea	Water Lilies	3
Onagraceae	Oenothera	Clockweed	3
Fabaceae	Ornithopus sativus	Neat Bird's-foot	3
Apodanthaceae	Pilostyles hamiltoniorum		3
Apodanthaceae	Pilostyles		3
Thymelaeaceae	Pimelea ciliata subsp. ciliata		3
Thymelaeaceae	Pimelea suaveolens subsp. suaveolens		3
Asteraceae	Pithocarpa pulchella var. melanostigma		3
Fabaceae	Retama raetam	White Weeping Broom	3
Chenopodiaceae	Rhagodia candolleana		3
Asteraceae	Rhodanthe pyrethrum		3
Euphorbiaceae	Ricinocarpos cyanescens		3
Santalaceae	Santalaceae	Sandlewood Family	3
Goodeniaceae	Scaevola anchusifolia	Silky Scaevola	3
Goodeniaceae	Scaevola	Fan-flowers	3
Myrtaceae	Scholtzia involucrata	Spiked Scholtzia	3
Asteraceae	Senecio	Groundsel	3
Rubiaceae	Sherardia arvensis	Field Madder	3
Caryophyllaceae	Spergula arvensis	Corn Spurrey	3
Ericaceae	Sphenotoma gracilis	Swamp Paper Heath	3
Lamiaceae	Stachys arvensis	Stagger Weed	3
Brassicaceae	Stenopetalum robustum		3
Stylidiaceae	Stylidium angustifolium subsp. glaucifolium		3
Stylidiaceae	Stylidium araeophyllum	Stilt Walker	3

Stylidiaceae	Stylidium divaricatum	Daddy-long-legs	3
Stylidiaceae	Stylidium inundatum	Hundreds And Thousands	3
Stylidiaceae	Stylidium petiolare	Horn Triggerplant	3
Stylidiaceae	Stylidium pulchellum	Thumbelina Triggerplant	3
Asteraceae	Symphyotrichum squamatum	Bushy Starwort	3
Proteaceae	Synaphea petiolaris subsp. triloba		3
Proteaceae	Synaphea sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea	3
Fabaceae	Trifolium	Clover	3
Asteraceae	Ursinia anthemoides subsp. anthemoides	Ursinia	3
Myrtaceae	Verticordia densiflora var. cespitosa		3
Apocynaceae	Vinca major	Blue Periwinkle	3
Fabaceae	Acacia browniana var. obscura		2
Fabaceae	Acacia longifolia subsp. longifolia	Sallow Wattle	2
Fabaceae	Acacia longifolia	Sallow Wattle	2
Fabaceae	Acacia myrtifolia	Myrtle Wattle	2
Fabaceae	Acacia paradoxa	Kangaroo Thorn	2
Fabaceae	Acacia pycnantha	Golden Wattle	2
Fabaceae	Acacia saligna subsp. Southern forest (B.R.Maslin & J.E.Reid BRM 9952)		2
Casuarinaceae	Allocasuarina thuyoides	Horned Sheoak	2
Casuarinaceae	Allocasuarina		2
Amaranthaceae	Amaranthaceae	Amaranth	2
Euphorbiaceae	Amperea simulans		2
Ericaceae	Andersonia lehmanniana subsp. lehmanniana		2
Ericaceae	Andersonia lehmanniana		2
Asteraceae	Angianthus drummondii		2
Solanaceae	Anthocercis		2
Fabaceae	Aotus cordifolia		2
Fabaceae	Aotus intermedia		2
Apiaceae	Apium graveolens	Celery	2
Asteraceae	Asteridea		2
Chenopodiaceae	Atriplex prostrata	Hastate Orache	2
Proteaceae	Banksia armata		2
Proteaceae	Banksia menziesii	Firewood Banksia	2
Myrtaceae	Beaufortia sparsa	Swamp Bottlebrush	2
Pittosporaceae	Billardiera laxiflora		2
Rutaceae	Boronia ramosa subsp. ramosa		2
Brassicaceae	Brassica tournefortii	Wild Turnip	2
Brassicaceae	Cakile edentula	American Sea Rocket	2
Plantaginaceae	Callitriche brutia	Water Starwort	2
Myrtaceae	Calothamnus graniticus		2
Myrtaceae	Calothamnus lateralis var. lateralis		2
Myrtaceae	Calothamnus rupestris	Mouse Ears	2
Myrtaceae	Calothamnus schaueri		2
Myrtaceae	Calytrix leschenaultii	Posy Starflower	2
Lauraceae	Cassytha micrantha		2
Casuarinaceae	Casuarina equisetifolia	Coastal She-oak	2
Casuarinaceae	Casuarina	Oaks	2
Apiaceae	Centella asiatica	Indian Pennywort	2
Chenopodiaceae	Chenopodium macrospermum	Red-stem Goosefoot	2
Fabaceae	Chorizema glycinifolium		2
Fabaceae	Chorizema ilicifolium	Holly Flame Pea	2
Fabaceae	Chorizema		2
Asteraceae	Cichorium intybus	Chicory	2
Ranunculaceae	Clematis linearifolia	Slender Clematis	2
Polygalaceae	Comesperma flavum		2
Proteaceae	Conospermum capitatum subsp. glabratum		2

Proteaceae	Conospermum capitatum		2
Proteaceae	Conospermum flexuosum subsp. laevigatum		2
Asteraceae	Cotula australis	Common Cotula	2
Asteraceae	Cotula bipinnata	Ferny Cotula	2
Asteraceae	Cotula cotuloides	Smooth Cotula	2
Rhamnaceae	Cryptandra arbutiflora var. tubulosa	Waxy Cryptandra	2
Cucurbitaceae	Cucurbita maxima	Ironbark Pumpkin	2
Myrtaceae	Darwinia oederoides		2
Myrtaceae	Darwinia vestita	Pom-pom Darwinia	2
Fabaceae	Daviesia nudiflora		2
Droseraceae	Drosera bulbigena	Midget Sundew	2
Droseraceae	Drosera squamosa		2
Droseraceae	Drosera stelliflora		2
Chenopodiaceae	Dysphania multifida	Scented Goosefoot	2
Elaeocarpaceae	Elaeocarpaceae		2
Myrtaceae	Eremaea asterocarpa		2
Geraniaceae	Erodium cicutarium	Common Herons-bill	2
Myrtaceae	Eucalyptus erythrocorys	Red-capped Gum	2
Myrtaceae	Eucalyptus macrocarpa	Blue Bush	2
Myrtaceae	Eucalyptus wandoo subsp. wandoo	Wandoo	2
Moraceae	Ficus carica	Edible Fig	2
Apiaceae	Foeniculum vulgare	Fennel	2
Rubiaceae	Galium divaricatum	Slender Bedstraw	2
Fabaceae	Gastrolobium bilobum	Heart-leaved Poison	2
Fabaceae	Gastrolobium ebracteolatum		2
Fabaceae	Gastrolobium spinosum	Prickly Poison	2
Asteraceae	Gazania linearis	Gazania	2
Geraniaceae	Geranium solanderi	Austral Geranium	2
Phrymaceae	Glossostigma diandrum	Glossostigma	2
Fabaceae	Gompholobium scabrum	Painted Lady	2
Goodeniaceae	Goodenia coerulea		2
Goodeniaceae	Goodenia incana	Hoary Goodenia	2
Proteaceae	Grevillea pulchella subsp. pulchella		2
Proteaceae	Grevillea rosieri		2
Proteaceae	Grevillea vestita		2
Proteaceae	Hakea ruscifolia	Candle Hakea	2
Asteraceae	Helianthus annuus	Sunflower	2
Asteraceae	Helianthus debilis subsp. cucumerifolius	Cucumberleaf Sunflower	2
Lamiaceae	Hemiandra		2
Dilleniaceae	Hibbertia ferruginea		2
Dilleniaceae	Hibbertia perfoliata		2
Dilleniaceae	Hibbertia quadricolor		2
Asteraceae	Hyalosperma praecox	Mayweed Sunray	2
Asteraceae	Hyalosperma simplex subsp. simplex		2
Araliaceae	Hydrocotyle scutellifera	Western Shield Pennywort	2
Myrtaceae	Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J.Keighery 16777)		2
Convolvulaceae	Ipomoea indica	Purple Morning-glory	2
Proteaceae	Isopogon longifolius		2
Campanulaceae	Isotoma scapigera	Salt Isotome	2
Fabaceae	Isotropis		2
Fabaceae	Kennedia		2
Myrtaceae	Kunzea	Tickbush	2
Asteraceae	Lactuca serriola	Prickly Lettuce	2
Proteaceae	Lambertia multiflora var. darlingensis		2
Fabaceae	Lathyrus tingitanus	Tangier Pea	2
Fabaceae	Latrobea tenella		2

Lamiaceae	Leonotis leonurus	Lion's Ear	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Santalaceae	Leptomeria ellytes		2
Ericaceae	Leucopogon pendulus		2
Ericaceae	Leucopogon polymorphus		2
Ericaceae	Leucopogon sp. Busselton (D.Cooper 243)		2
Caprifoliaceae	Lonicera japonica	Japanese Honeysuckle	2
Fabaceae	Lupinus luteus	Yellow Lupin	2
Pittosporaceae	Marianthus granulatus		2
Myrtaceae	Melaleuca acutifolia		2
Myrtaceae	Melaleuca nesophila	Showy Honey Myrtle	2
Myrtaceae	Melaleuca nodosa	Pricklyleaf Paperbark	2
Campanulaceae	Monopsis debilis var. depressa		2
Polygonaceae	Muehlenbeckia adpressa	Climbing Lignum	2
Scrophulariaceae	Myoporum caprarioides	Slender Myoporum	2
Haloragaceae	Myriophyllum	Water Milfoil	2
Onagraceae	Oenothera drummondii subsp. drummondii	Beach Evening Primrose	2
Asteraceae	Olearia paucidentata	Autumn Scrub Daisy	2
Fabaceae	Ornithopus pinnatus	Slender Serradella	2
Oxalidaceae	Oxalis depressa		2
Oxalidaceae	Oxalis	Wood Sorrel	2
Apiaceae	Pastinaca sativa	Parsnip	2
Myrtaceae	Pericalymma spongiocaule		2
Loganiaceae	Phyllangium divergens	Wiry Mitrewort	2
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	2
Asteraceae	Picris squarrosa	Squat Picris	2
Thymelaeaceae	Pimelea longiflora		2
Thymelaeaceae	Pimelea suaveolens	Scented Banjine	2
Pittosporaceae	Pittosporum undulatum	Sweet Pittosporum	2
Asteraceae	Podotheca angustifolia	Sticky Long-heads	2
Asteraceae	Pseudognaphalium luteoalbum	Jersey Cudweed	2
Fabaceae	Pultenaea ochreata		2
Brassicaceae	Raphanus raphanistrum	Wild Radish	2
Rutaceae	Rhadinothamnus anceps	Blister Bush	2
Euphorbiaceae	Ricinus communis	Castor Oil Plant	2
Zygophyllaceae	Roepera apiculata	Pointed Twinleaf	2
Rosaceae	Rosa rubiginosa	Sweet Briar	2
Rosaceae	Rosa	Wild Rose/briar	2
Chenopodiaceae	Salicornia blackiana	Thick-head Samphire	2
Gentianaceae	Schenkia australis	Spike Centaury	2
Fabaceae	Sphaerolobium drummondii	Globe Pea	2
Fabaceae	Sphaerolobium macranthum		2
Fabaceae	Sphaerolobium		2
Stylidiaceae	Stylidium androsaceum	Book Triggerplant	2
Stylidiaceae	Stylidium crassifolium	Thick-leaved Triggerplant	2
Stylidiaceae	Stylidium dichotomum	Pins And Needles	2
Stylidiaceae	Stylidium ecorne	Foot Triggerplant	2
Stylidiaceae	Stylidium hesperium	Western Reed Triggerplant	2
Stylidiaceae	Stylidium violaceum	Violet Triggerplant	2
Ericaceae	Styphelia	Styphelia	2
Chenopodiaceae	Suaeda		2
Proteaceae	Synaphea spinulosa		2
Myrtaceae	Syzygium sp. (Bartle Frere)		2
Myrtaceae	Taxandria parviceps	Myrtle	2
Chenopodiaceae	Tecticornia	Samphires	2
Elaeocarpaceae	Tetratheca	Milkmaids	2

Malvaceae	Thomasia macrocalyx		2
Elaeocarpaceae	Tremandra diffusa		2
Fabaceae	Trifolium fragiferum var. fragiferum	Strawberry Clover	2
Fabaceae	Trifolium glomeratum	Cluster Clover	2
Fabaceae	Trifolium hirtum	Rose Clover	2
Fabaceae	Trifolium ligusticum	Ligurian Clover	2
Lentibulariaceae	Utricularia menziesii	Redcoats	2
Myrtaceae	Verticordia drummondii	Drummond's Featherflower	2
Violaceae	Viola odorata	Common Violet	2
Apiaceae	Xanthosia atkinsoniana		2
Fabaceae	Acacia bidentata		1
Fabaceae	Acacia crispula		1
Fabaceae	Acacia drummondii subsp. affinis		1
Fabaceae	Acacia drummondii subsp. elegans		1
Fabaceae	Acacia drummondii	Drummond's Wattle	1
Fabaceae	Acacia mearnsii	Black Wattle	1
Fabaceae	Acacia microbotrya	Manna Wattle	1
Fabaceae	Acacia pycnocephala		1
Fabaceae	Acacia sessilis		1
Myrtaceae	Actinodium cunninghamii	Swamp Daisy	1
Apiaceae	Actinotus leucocephalus	Flannel Flower	1
Loganiaceae	Adelphacme minima		1
Euphorbiaceae	Adriana quadripartita	Rare Bitter-bush	1
Violaceae	Afrohybanthus enneaspermus	Ladys Slipper	1
Casuarinaceae	Allocasuarina acutivalvis subsp. acutivalvis		1
Casuarinaceae	Allocasuarina ramosissima		1
Amaranthaceae	Alternanthera nodiflora	Common Joyweed	1
Amaranthaceae	Alternanthera	Chaff Flower	1
Amaranthaceae	Amaranthus blitum		1
Amaranthaceae	Amaranthus powellii	Powell's Amaranth	1
Ericaceae	Andersonia aristata	Rice Flower	1
Ericaceae	Andersonia micrantha		1
Ericaceae	Andersonia		1
Solanaceae	Anthocercis ilicifolia subsp. ilicifolia		1
Apiaceae	Anthriscus caucalis	Burr Chervil	1
Fabaceae	Aotus procumbens		1
Fabaceae	Aotus		1
Apocynaceae	Araujia sericifera	White Bladder-flower	1
Asteraceae	Artemisia verlotiorum	Chinese Wormwood	1
Myrtaceae	Astartea pulchella		1
Myrtaceae	Astartea zephyra		1
	Asterales		1
Chenopodiaceae	Atriplex hortensis	Garden Orache	1
Chenopodiaceae	Atriplex hypoleuca		1
Chenopodiaceae	Atriplex nummularia	Old-man Saltbush	1
Chenopodiaceae	Atriplex paludosa	Marsh Saltbush	1
Chenopodiaceae	Atriplex	Orache	1
Myrtaceae	Baeckea		1
Proteaceae	Banksia dallanneyi var. dallanneyi		1
Proteaceae	Banksia prionotes	Acorn Banksia	1
Proteaceae	Banksia sphaerocarpa var. sphaerocarpa	Round-fruited Banksia	1
Proteaceae	Banksia sphaerocarpa	Fox Banksia	1
Proteaceae	Banksia verticillata	Albany Banksia	1
Asteraceae	Berkheya rigida	African Thistle	1
Pittosporaceae	Billardiera fraseri	Elegant Pronaya	1
Pittosporaceae	Billardiera heterophylla	Bluebell Creeper	1

Rutaceae	Boronia cymosa	Granite Boronia	1
Rutaceae	Boronia megastigma	Scented Boronia	1
Rutaceae	Boronia molloyae	Tall Boronia	1
Rutaceae	Boronia ramosa subsp. anethifolia		1
Rutaceae	Boronia ramosa		1
Rutaceae	Boronia tetragona		1
Fabaceae	Bossiaea linophylla	Narrow-leaved Bossiaea	1
Fabaceae	Bossiaea		1
Malvaceae	Brachychiton populneus	Kurrajong	1
Asteraceae	Brachyscome		1
Brassicaceae	Brassica x juncea	Indian Mustard	1
Brassicaceae	Brassica x napus	Rape	1
Brassicaceae	Cakile maritima subsp. maritima	Sea Rocket	1
Portulacaceae	Calandrinia brevipedata	Short-stalked Purslane	1
Portulacaceae	Calandrinia corrigioloides	Strap Purslane	1
Portulacaceae	Calandrinia polyandra	Parakeelya	1
Portulacaceae	Calandrinia	Parakeelya	1
Myrtaceae	Calytrix tetragona	Grampians Fringe-myrtle	1
Myrtaceae	Calytrix	Fringe Myrtle	1
Bignoniaceae	Campsis radicans		1
Aizoaceae	Carpobrotus edulis	Hottentot Fig	1
	Caryophyllales		1
Lauraceae	Cassytha flava	Dodder Laurel	1
Lauraceae	Cassytha glabella f. casuarinae		1
Lauraceae	Cassytha pomiformis	Dodder Laurel	1
Lauraceae	Cassytha pubescens	Downy Dodder-laurel	1
Caprifoliaceae	Centranthus		1
Fabaceae	Chamaecytisus palmensis	Tree Lucerne	1
Myrtaceae	Chamelaucium sp. Yoongarillup (G.J.Keighery 3635)		1
Chenopodiaceae	Chenopodium auricomiforme		1
Chenopodiaceae	Chenopodium glaucum	Glaucous Goosefoot	1
Chenopodiaceae	Chenopodium murale	Sowbane	1
Chenopodiaceae	Chenopodium	Fat Hen	1
Fabaceae	Chorizema aciculare subsp. aciculare		1
Fabaceae	Chorizema aciculare subsp. laxum		1
Fabaceae	Chorizema nanum		1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Ranunculaceae	Clematis microphylla	Small-leaved Clematis	1
Ranunculaceae	Clematis	Old Man's Beard	1
Polygalaceae	Comesperma calymega	Blue-spike Milkwort	1
Polygalaceae	Comesperma polygaloides	Small Milkwort	1
Proteaceae	Conospermum caeruleum	Blue Brother	1
Proteaceae	Conospermum stoechadis	Common Smokebush	1
Ericaceae	Conostephium	Pearl Flowers	1
Convolvulaceae	Convolvulus angustissimus subsp. angustissimus	Blushing Bindweed	1
Convolvulaceae	Convolvulus arvensis	Common Bindweed	1
Myrtaceae	Corymbia maculata	Spotted Gum	1
Crassulaceae	Crassula alata		1
Crassulaceae	Crassula natans var. minor	Water Crassula	1
Asteraceae	Crepis foetida subsp. foetida	Stinking Hawksbeard	1
Rutaceae	Crowea angustifolia var. platyphylla	Bush Crowea	1
Rhamnaceae	Cryptandra nutans		1
Cucurbitaceae	Cucumis sp. Bunbury (G.Brayshaw s.n. 26/2/91)		1
Convolvulaceae	Cuscuta campestris	Golden Dodder	1
Convolvulaceae	Cuscuta epithymum	Common Dodder	1
Convolvulaceae	Cuscuta suaveolens	Fringed Dodder	1

Goodeniaceae	Dampiera hederacea	Karri Dampiera	1
Fabaceae	Daviesia horrida	Prickly Bitter-pea	1
Fabaceae	Daviesia incrassata subsp. incrassata		1
Fabaceae	Daviesia inflata		1
Fabaceae	Daviesia nudiflora subsp. nudiflora		1
Fabaceae	Daviesia podophylla		1
Fabaceae	Daviesia polyphylla		1
Fabaceae	Daviesia	Bitter Peas	1
Goodeniaceae	Diaspasis filifolia	Thread-leaved Diaspasis	1
Fabaceae	Dillwynia dillwynioides		1
Fabaceae	Dillwynia laxiflora		1
Fabaceae	Dillwynia	Egg And Bacon Peas	1
Asteraceae	Dimorphotheca ecklonis	Cape Daisy	1
Asteraceae	Dimorphotheca	Cape Marigold	1
Rutaceae	Diplolaena drummondii	Lesser Diplolaena	1
Rutaceae	Diplolaena grandiflora	Wild Rose	1
Rutaceae	Diplolaena		1
Brassicaceae	Diplotaxis	Rocket	1
Asteraceae	Dittrichia graveolens	Stinkwort	1
Sapindaceae	Dodonaea	Hopbush	1
Droseraceae	Drosera geniculata		1
Droseraceae	Drosera huegelii	Bold Sundew	1
Droseraceae	Drosera intricata		1
Droseraceae	Drosera microphylla	Golden Rainbow	1
Droseraceae	Drosera myriantha	Star Rainbow	1
Droseraceae	Drosera nitidula	Shining Sundew	1
Droseraceae	Drosera tubaestylis		1
Elatinaceae	Elatine gratioloides	Waterwort	1
Onagraceae	Epilobium billardiereanum subsp. intermedium	Variable Willow-herb	1
Onagraceae	Epilobium ciliatum	Glandular Willow-herb	1
Myrtaceae	Eremaea asterocarpa subsp. asterocarpa		1
Myrtaceae	Eremaea pauciflora		1
Asteraceae	Erigeron	Fleabane	1
Geraniaceae	Erodium moschatum	Musky Herons-bill	1
Myrtaceae	Eucalyptus adesmophloia	Wellstead Mallee	1
Myrtaceae	Eucalyptus decipiens	Redheart	1
Myrtaceae	Eucalyptus diversicolor	Karri	1
Myrtaceae	Eucalyptus marginata subsp. thalassica	Blue-leaved Jarrah	1
Myrtaceae	Eucalyptus patens	Blackbutt	1
Myrtaceae	Eucalyptus vegrandis	Ongerup Mallee	1
Asteraceae	Euchiton sphaericus	Common Cudweed	1
Euphorbiaceae	Euphorbia dendroides	Tree Spurge	1
Euphorbiaceae	Euphorbia peplus	Cancer Weed	1
Euphorbiaceae	Euphorbia terracina	False Caper	1
Euphorbiaceae	Euphorbiaceae	Spurge	1
Euphorbiaceae	Euphorbia	Spurge	1
Fabaceae	Eutaxia epacridoides		1
Fabaceae	Eutaxia myrtifolia		1
Convolvulaceae	Evolvulus alsinoides var. sericeus	Tropical Speedwell	1
Frankeniaceae	Frankenia	Sea-heath	1
Papaveraceae	Fumaria bastardii	Bastard Fumitory	1
Rubiaceae	Galium spurium	Bedstraw	1
Fabaceae	Gastrolobium celsianum		1
Fabaceae	Gastrolobium retusum		1
Geraniaceae	Geranium gardneri	Rough Cranes-bill	1
Polemoniaceae	Gilia		1

Asteraceae	Glebionis segetum	Corn Marigold	1
Haloragaceae	Glischrocaryon angustifolium	Golden Pennants	1
Asteraceae	Gnephosis angianthoides		1
Fabaceae	Gompholobium burtonioides		1
Fabaceae	Gompholobium ovatum		1
Haloragaceae	Gonocarpus nodulosus		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain A (M.Hislop 634)		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain B (L.W.Sage 2336)		1
Goodeniaceae	Goodeniaceae	Fan Flower	1
Campanulaceae	Grammatotheca bergiana var. bergiana		1
Campanulaceae	Grammatotheca bergiana		1
Plantaginaceae	Gratiola pubescens	Glandular Brooklime	1
Proteaceae	Grevillea dryandri subsp. dryandri	Dryander's Grevillea	1
Proteaceae	Grevillea preissii	Spider Net Grevillea	1
Proteaceae	Grevillea wilsonii	Wilson's Grevillea	1
Proteaceae	Hakea laurina	Pincushion Hakea	1
Proteaceae	Hakea marginata		1
Proteaceae	Hakea trifurcata	Two-leaf Hakea	1
Asteraceae	Helichrysum		1
Boraginaceae	Heliotropium	Heliotrope	1
Lamiaceae	Hemiandra glabra		1
Lamiaceae	Hemigenia sericea	Silky Hemigenia	1
Dilleniaceae	Hibbertia mylnei		1
Dilleniaceae	Hibbertia pilosa	Hairy Guinea Flower	1
Dilleniaceae	Hibbertia semipilosa		1
Malvaceae	Hibiscus drummondii		1
Fabaceae	Hovea pungens	Devils Pins	1
Asteraceae	Hyalosperma demissum	Dwarf Sunray	1
Asteraceae	Hyalosperma glutinosum subsp. glutinosum	Golden Sunray	1
Violaceae	Hybanthus debilissimus		1
Araliaceae	Hydrocotyle hispidula		1
Myrtaceae	Hypocalymma cordifolium		1
Myrtaceae	Hypocalymma ericifolium		1
Proteaceae	Isopogon attenuatus		1
Proteaceae	Isopogon formosus subsp. dasylepis		1
Proteaceae	Isopogon formosus	Rose Coneflower	1
Proteaceae	Isopogon	Drumsticks	1
Fabaceae	Jacksonia spinosa		1
Fabaceae	Kennedia coccinea subsp. calcaria		1
Fabaceae	Kennedia nigricans	Black Coral-pea	1
Fabaceae	Kennedia rubicunda	Red Kennedy Pea	1
Myrtaceae	Kunzea ericifolia	Spearwood	1
Asteraceae	Lactuca sativa	Lettuce	1
Asteraceae	Lagenophora platysperma		1
Verbenaceae	Lantana camara	Lantana	1
Malvaceae	Lasiopetalum laxiflorum		1
Malvaceae	Lasiopetalum	Velvet Bush	1
Lamiaceae	Lavandula dentata	French Lavender	1
Malvaceae	Lawrencia spicata	Salt Lawrencia	1
Santalaceae	Leptomeria empetriformis		1
Santalaceae	Leptomeria furtiva		1
Santalaceae	Leptomeria scrobiculata		1
Myrtaceae	Leptospermum laevigatum	Coast Tea-tree	1
Myrtaceae	Leptospermum sericatum		1
Ericaceae	Leucopogon gracilis		1
Ericaceae	Leucopogon nutans	Drooping Leucopogon	1

Ericaceae	Leucopogon oldfieldii		1
Ericaceae	Leucopogon reflexus		1
Ericaceae	Leucopogon striatus		1
Stylidiaceae	Levenhookia aestiva		1
Stylidiaceae	Levenhookia	Styleworts	1
Menyanthaceae	Liparophyllum capitatum		1
Campanulaceae	Lobelia rarifolia		1
Campanulaceae	Lobelia rhombifolia	Tufted Lobelia	1
Campanulaceae	Lobelia tenuior subsp. tenuior	Slender Lobelia	1
Loganiaceae	Logania vaginalis	White Spray	1
Asteraceae	Logfia gallica	Narrow Cudweed	1
Caprifoliaceae	Lonicera	Honeysuckle	1
Fabaceae	Lupinus albus		1
Ericaceae	Lysinema elegans		1
Lythraceae	Lythrum hyssopifolia	Lesser Loosestrife	1
Malvaceae	Malva arborea	Tree Mallow	1
Asteraceae	Mauranthemum paludosum	Ox-eye Daisy	1
Fabaceae	Medicago littoralis	Strand Medic	1
Fabaceae	Medicago orbicularis	Button Medic	1
Myrtaceae	Melaleuca huegelii	Chenille Honeymyrtle	1
Myrtaceae	Melaleuca incana	Grey Honeymyrtle	1
Myrtaceae	Melaleuca microphylla		1
Myrtaceae	Melaleuca osullivanii		1
Myrtaceae	Melaleuca quinquenervia	Swamp Paperbark	1
Myrtaceae	Melaleuca seriata		1
Myrtaceae	Melaleuca uncinata	Broombush	1
Myrtaceae	Melaleuca viminea	Mohan	1
Melianthaceae	Melianthus major	Cape Honey-flower	1
Fabaceae	Melilotus albus	Bokhara Clover	1
Lamiaceae	Mentha suaveolens	Apple Mint	1
Aizoaceae	Mesembryanthemum	Iceplant	1
Nyctaginaceae	Mirabilis jalapa	Marvel-of-peru	1
Fabaceae	Mirbelia dilatata	Holly-leaved Mirbelia	1
Asteraceae	Monoculus monstrosus	Tripteris	1
Polygonaceae	Muehlenbeckia complexa	Wire Vine	1
Asteraceae	Myriocephalus helichrysoides		1
Haloragaceae	Myriophyllum limnophilum		1
Haloragaceae	Myriophyllum propinquum	Water Milfoil	1
Haloragaceae	Myriophyllum tillaeoides		1
Ericaceae	Needhamiella pumilio		1
Nymphaeaceae	Nymphaea mexicana	Mexican Water-lily	1
Onagraceae	Oenothera stricta	Common Evening Primrose	1
Rubiaceae	Opercularia echinocephala	Bristly Headed Stinkweed	1
Loganiaceae	Orianthera serpyllifolia subsp. serpyllifolia		1
Loganiaceae	Orianthera wendyae		1
Menyanthaceae	Ornduffia		1
Oxalidaceae	Oxalis incarnata	Pale Wood-sorrel	1
Oxalidaceae	Oxalis purpurea	One-o'clock	1
Fabaceae	Oxylobium	Shaggy Peas	1
Fabaceae	Paraserianthes lophantha subsp. lophantha	Crested Wattle	1
Fabaceae	Paraserianthes lophantha	Cape Leeuwin Wattle	1
Vitaceae	Parthenocissus quinquefolia	Virginia Creeper	1
Passifloraceae	Passiflora caerulea	Blue Passionflower	1
Passifloraceae	Passiflora filamentosa	Palmate Passionflower	1
Geraniaceae	Pelargonium x domesticum	Pelargonium	1
Geraniaceae	Pelargonium x hortorum	Zonal Pelargonium	1

Polygonaceae	Persicaria decipiens	Slender Knotweed	1
Polygonaceae	Persicaria	Smartweeds	1
Proteaceae	Persoonia	Geebungs	1
Solanaceae	Physalis hederifolia	Ivy-leaf Ground-cherry	1
Solanaceae	Physalis peruviana	Cape Gooseberry	1
Asteraceae	Picris angustifolia	Native Picris	1
Asteraceae	Picris	Ox-tongue	1
Thymelaeaceae	Pimelea angustifolia	Narrow-leaved Pimelea	1
Thymelaeaceae	Pimelea ciliata	White Banjine	1
Thymelaeaceae	Pimelea hispida	Bristly Pimelea	1
Thymelaeaceae	Pimelea imbricata		1
Thymelaeaceae	Pimelea lehmanniana subsp. nervosa		1
Plantaginaceae	Plantago	Plantain	1
Asteraceae	Podolepis lessonii		1
Asteraceae	Podolepis nutans		1
Caryophyllaceae	Polycarpon tetraphyllum	Four-leaf Allseed	1
Rosaceae	Prunus cerasifera	Purple-leaf Cherry-plum	1
Rosaceae	Prunus persica	Peach	1
Euphorbiaceae	Pseudanthus		1
Asteraceae	Pseudognaphalium		1
Amaranthaceae	Ptilotus drummondii	Narrowleaf Mulla Mulla	1
Amaranthaceae	Ptilotus sericostachyus subsp. sericostachyus		1
Amaranthaceae	Ptilotus stirlingii subsp. stirlingii		1
Fabaceae	Pultenaea ericifolia		1
Asteraceae	Pycnosorus globosus	Drumsticks	1
Ranunculaceae	Ranunculus muricatus	Pricklefruit Buttercup	1
Ranunculaceae	Ranunculus pumilio	Ferny Buttercup	1
Brassicaceae	Raphanus	Radish	1
Chenopodiaceae	Rhagodia baccata subsp. dioica	Sea Berry Saltbush	1
Asteraceae	Rhodanthe chlorocephala subsp. rosea	Common Everlasting	1
Asteraceae	Rhodanthe corymbosa		1
Asteraceae	Rhodanthe floribunda	Large White Sunray	1
Asteraceae	Rhodanthe propinqua		1
Zygophyllaceae	Roepera fruticulosa		1
Brassicaceae	Rorippa nasturtium-aquaticum	Watercress	1
Lamiaceae	Rosmarinus officinalis	Rosemary	1
Polygonaceae	Rumex acetosella	Sorrel	1
Polygonaceae	Rumex brownii	Swamp Dock	1
Polygonaceae	Rumex obtusifolius	Broad-leaf Dock	1
Polygonaceae	Rumex vesicarius	Bladder Dock	1
Polygonaceae	Rumex	Emex	1
Caryophyllaceae	Sagina maritima	Sea Pearlwort	1
Salicaceae	Salix babylonica	Weeping Willow	1
Salicaceae	Salix x sepulcralis	Weeping Willow	1
Salicaceae	Salix	Willow	1
Goodeniaceae	Scaevola glandulifera	Viscid Hand-flower	1
Goodeniaceae	Scaevola lanceolata	Long-leaved Scaevola	1
Goodeniaceae	Scaevola nitida	Shining Fanflower	1
Anacardiaceae	Schinus terebinthifolia	Brazilian Pepper Tree	1
Anacardiaceae	Schinus	Pepper Tree	1
Asteraceae	Schoenia cassiniana	Pink Everlasting	1
Asteraceae	Senecio diaschides	Shingle Fireweed	1
Asteraceae	Senecio hispidulus	Rough Fireweed	1
Asteraceae	Senecio lautus	Variable Groundsel	1
Asteraceae	Senecio vulgaris	Common Groundsel	1
Malvaceae	Sida hookeriana		1

Caryophyllaceae	Silene gallica var. gallica	French Catchfly	1
Asteraceae	Siloxerus filifolius		1
Asteraceae	Silybum marianum	Variegated Thistle	1
Brassicaceae	Sisymbrium irio	London Rocket	1
Brassicaceae	Sisymbrium officinale	Hedge Mustard	1
Solanaceae	Solanum elaeagnifolium	Silver-leaf Nightshade	1
Solanaceae	Solanum linnaeanum	Apple Of Sodom	1
Solanaceae	Solanum symonii	Symon's Kangaroo-apple	1
Solanaceae	Solanum	Nightshades	1
Urticaceae	Soleirolia soleirolii	Baby's Tears	1
Asteraceae	Soliva sessilis	Jo-jo	1
Asteraceae	Sonchus asper	Rough Sow-thistle	1
Asteraceae	Sonchus hydrophilus	Native Sow-thistle	1
Caryophyllaceae	Spergularia rubra	Sand Spurry	1
Ericaceae	Sphenotoma		1
Celastraceae	Stackhousia pubescens		1
Proteaceae	Stirlingia		1
Stylidiaceae	Stylidium acuminatum subsp. acuminatum		1
Stylidiaceae	Stylidium breviscapum	Boomerang Triggerplant	1
Stylidiaceae	Stylidium diuroides	Donkey Triggerplant	1
Stylidiaceae	Stylidium graminifolium	Grass Triggerplant	1
Stylidiaceae	Stylidium hispidum	White Butterfly Triggerplant	1
Stylidiaceae	Stylidium lateriticola		1
Stylidiaceae	Stylidium lineatum	Sunny Triggerplant	1
Stylidiaceae	Stylidium longitubum	Jumping Jacks	1
Stylidiaceae	Stylidium squamosotuberosum	Fleshy-rhizomed Triggerplant	1
Asteraceae	Symphyotrichum subulatum	Wild Aster	1
Proteaceae	Synaphea favosa		1
Proteaceae	Synaphea flabelliformis		1
Proteaceae	Synaphea sp. Serpentine (G.R.Brand 103)		1
Asteraceae	Taraxacum khatoonae	Dandelion	1
Asteraceae	Taraxacum	Garden Dandelion	1
Chenopodiaceae	Tecticornia arbuscula	Shrubby Samphire	1
Chenopodiaceae	Tecticornia indica subsp. bidens	Samphire	1
Chenopodiaceae	Tecticornia indica	Samphire	1
Theaceae	Theaceae		1
Malvaceae	Thomasia cognata		1
Malvaceae	Thomasia pauciflora	Few Flowered Thomasia	1
Malvaceae	Thomasia		1
Chenopodiaceae	Threlkeldia diffusa	Coast Bonefruit	1
Asteraceae	Tolpis barbata	Yellow Hawkweed	1
Araliaceae	Trachymene	Wild Parsnip	1
Fabaceae	Trifolium arvense var. arvense	Hare's-foot Clover	1
Fabaceae	Trifolium arvense	Haresfoot Clover	1
Fabaceae	Trifolium pratense	Red Clover	1
Hydatellaceae	Trithuria australis		1
Tropaeolaceae	Tropaeolum majus	Nasturtium	1
Lentibulariaceae	Utricularia inaequalis		1
Lentibulariaceae	Utricularia violacea	Violet Bladderwort	1
Scrophulariaceae	Verbascum virgatum	Twiggy Mullein	1
Verbenaceae	Verbena litoralis	Verbena	1
Verbenaceae	Verbena officinalis	Common Verbena	1
Myrtaceae	Verticordia acerosa var. preissii		1
Myrtaceae	Verticordia densiflora var. densiflora	Compacted Featherflower	1
Myrtaceae	Verticordia densiflora var. pedunculata	Longstalked Featherflower	1
Myrtaceae	Verticordia densiflora	Compacted Featherflower	1

Myrtaceae	Verticordia insignis subsp. insignis		1
Myrtaceae	Verticordia plumosa var. plumosa		1
Myrtaceae	Verticordia	Featherflowers	1
Fabaceae	Vicia benghalensis	Purple Vetch	1
Fabaceae	Vicia hirsuta	Hairy Vetch	1
Menyanthaceae	Villarsia		1
Violaceae	Violaceae	Violet	1
Asteraceae	Waitzia nitida		1
Convolvulaceae	Wilsonia backhousei	Narrow-leaf Wilsonia	1
Fabaceae	Wisteria		1
Apiaceae	Xanthosia tasmanica	Southern Xanthosia	1
Asteraceae	Xerochrysum bracteatum	Golden Everlasting	1

Lifeform - FernsAndAllies

Number of FernsAndAllies **0**

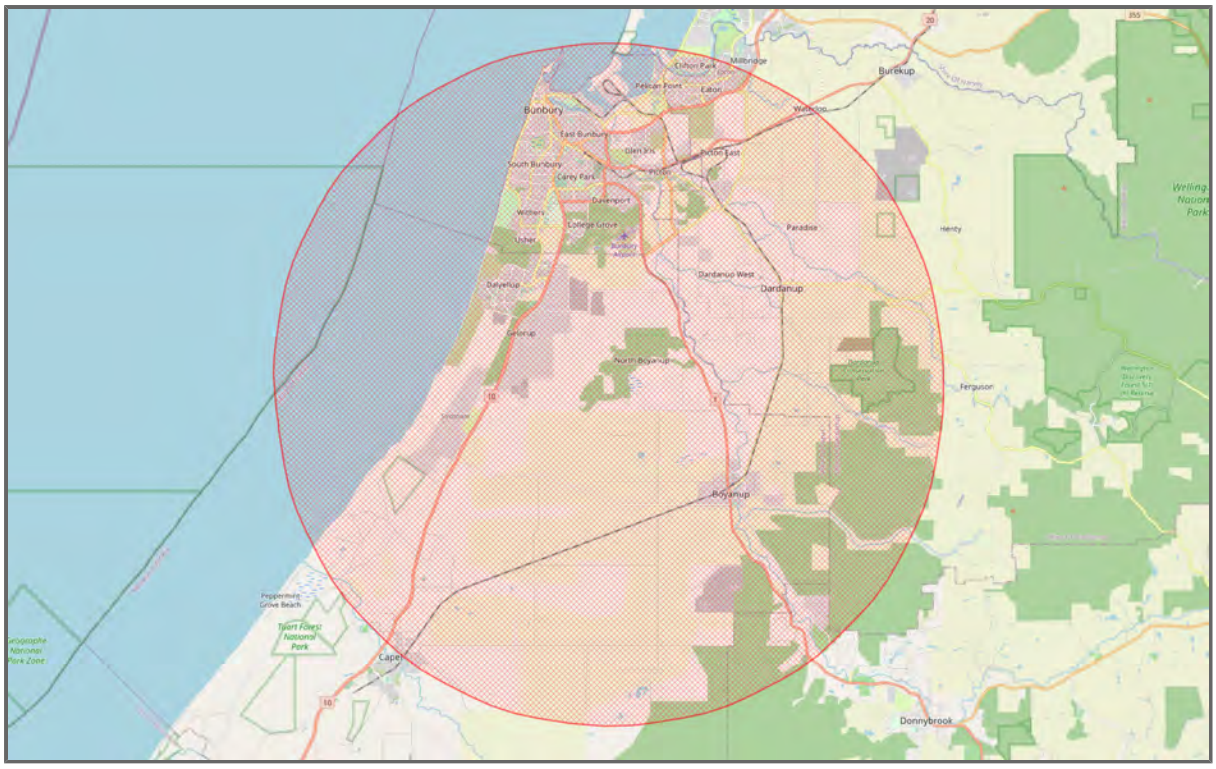

Figure 7 : Map of Lifeform - FernsAndAllies

Table 8: Lifeform - FernsAndAllies (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Fungi

Number of Fungi **257**

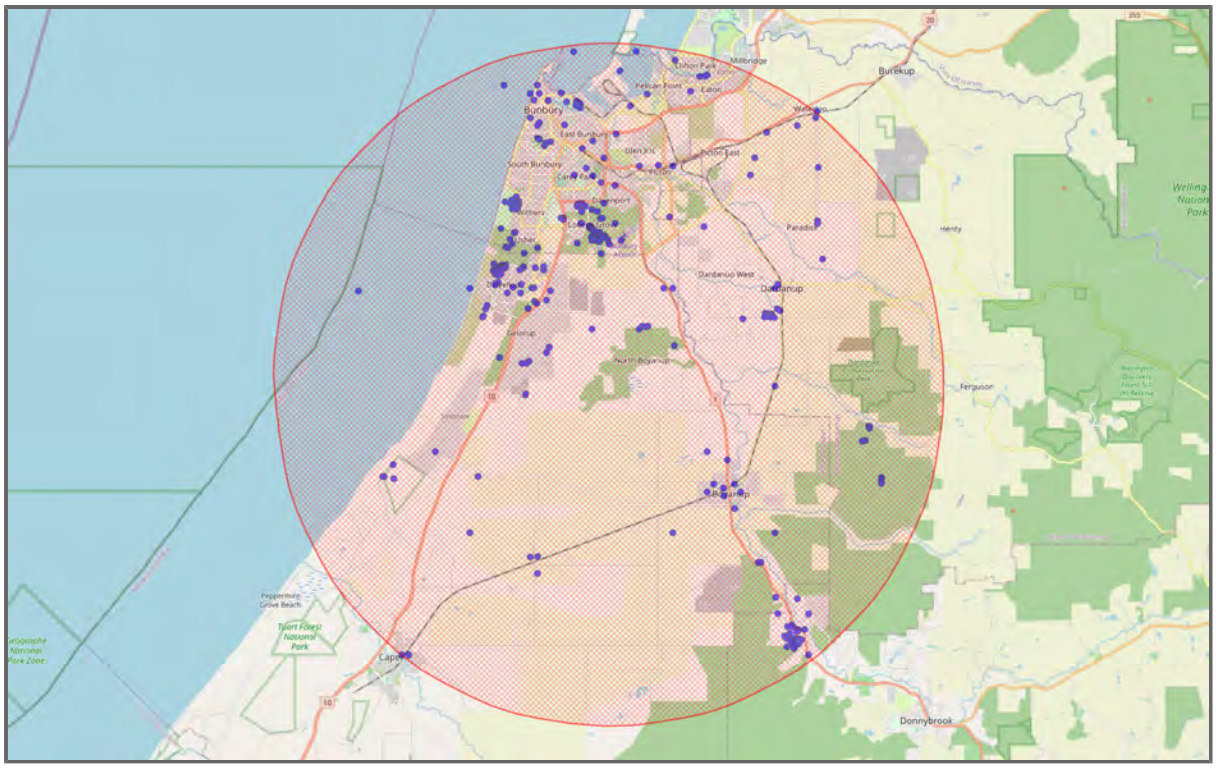

Figure 8 : Map of Lifeform - Fungi

Table 9: Lifeform - Fungi (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Dothioraceae	Kabatiella		78
	Agaricales		32
	Agaricomycetes		22
Polyporaceae	Trametes		18
	Fungi		17
Strophariaceae	Gymnopilus		9
Marasmiaceae	Omphalotus nidiformis		9
Candelariaceae	Candelariella xanthostigmoides		8
Psathyrellaceae	Psathyrellaceae		8
Amanitaceae	Amanita		7
Strophariaceae	Gymnopilus allantopus		7
Fomitopsidaceae	Piptoporus australiensis		7
Amanitaceae	Amanita xanthocephala		6
Chrysothricaceae	Chrysothrix candelaris	Gold Dust Lichen	6
Parmeliaceae	Flavoparmelia rutidota	Common Biscuit Lichen	6
Parmeliaceae	Parmeliaceae		6
Stereaceae	Stereum		6
Parmeliaceae	Usnea inermis		6
Parmeliaceae	Usnea		6
Pluteaceae	Volvopluteus gloiocephalus		6
Agaricaceae	Agaricus		5
Agaricaceae	Coprinus		5
Parmeliaceae	Flavoparmelia soredians		5
Parmeliaceae	Flavoparmelia		5
Hydnangiaceae	Laccaria		5

Parmeliaceae	Parmotrema reticulatum		5
Polyporaceae	Pycnoporus coccineus		5
	Basidiomycota		4
Cladoniaceae	Cladonia		4
Cortinariaceae	Cortinarius		4
Diaporthaceae	Diaporthe		4
Hymenochaetaceae	Fuscoporia gilva		4
Strophariaceae	Gymnopilus junonius		4
Hymenochaetaceae	Hymenochaetaceae		4
Teloschistaceae	Jackelixia elixii		4
Polyporaceae	Pycnoporus		4
Teloschistaceae	Teloschistes chrysophthalmus	Golden-eye Lichen	4
Pluteaceae	Volvopluteus		4
	Agaricineae		3
Strophariaceae	Agrocybe pediades		3
Parmeliaceae	Austroparmelina pruinata		3
Physciaceae	Buellia disciformis		3
Physciaceae	Buellia tetrapla		3
Teloschistaceae	Caloplaca erythrosticta		3
Psathyrellaceae	Coprinellus		3
Agaricaceae	Cyathus stercoreus		3
Fomitopsidaceae	Fomitopsidaceae		3
Nectriaceae	Fusarium		3
Hygrophoraceae	Hygrocybe		3
Mycosphaerellaceae	Mycosphaerella		3
Psathyrellaceae	Parasola		3
	Phoma		3
	Pleiochaeta		3
Pleurotaceae	Pleurotus australis		3
Ramalinaceae	Ramalina ovalis		3
Gomphaceae	Ramaria		3
	Agaricomycetidae		2
Pleosporaceae	Alternaria		2
Boletaceae	Austroboletus		2
Bolbitiaceae	Bolbitius titubans		2
Boletaceae	Boletaceae		2
Boletaceae	Boletellus obscurecoccineus		2
Botryosphaeriaceae	Botryosphaeria		2
Physciaceae	Buellia		2
Cladoniaceae	Cladonia rigida		2
Hymenochaetaceae	Coltricia		2
Psathyrellaceae	Coprinellus micaceus		2
Agaricaceae	Coprinus comatus	Shaggy Mane	2
Roccellaceae	Delisea pulchra		2
Dermateaceae	Diplocarpon rosae		2
Parmeliaceae	Flavoparmelia haysomii		2
Magnaporthaceae	Gaeumannomyces avenae		2
Graphidaceae	Graphis		2
Physciaceae	Heterodermia japonica		2
Physciaceae	Heterodermia		2
Polyporaceae	Hexagonia		2
Hygrophoraceae	Hygrocybe polychroma		2
Strophariaceae	Hypholoma fasciculare		2
Hysteriaceae	Hysterium		2
Collemataceae	Leptogium corniculatum		2
Strophariaceae	Leratiomyces ceres		2

Hygrophoraceae	Lichenomphalia chromacea	Yellow Navel	2
Mycenaceae	Mycena		2
Mycosphaerellaceae	Neopseudocercosporella brassicae		2
Parmeliaceae	Parmotrema		2
Pyronemataceae	Patella		2
Sclerodermataceae	Pisolithus		2
	Polyporales		2
Xylariaceae	Poronia erici		2
Psathyrellaceae	Psathyrella		2
Parmeliaceae	Punctelia		2
Ceratobasidiaceae	Rhizoctonia		2
Russulaceae	Russula clelandii		2
Russulaceae	Russula		2
Sclerodermataceae	Scleroderma citrinum		2
Sclerodermataceae	Scleroderma polyrhizum		2
Synchytriaceae	Synchytrium		2
Pucciniaceae	Uromyces rumicis		2
Pucciniaceae	Uromyces		2
Pileolariaceae	Uromycladium		2
Pluteaceae	Volvariella speciosa		2
Agaricaceae	Agaricaceae		1
Strophariaceae	Agrocybe		1
Amanitaceae	Amanita ananiceps		1
Amanitaceae	Amanita farinacea	Australian Flour Lepidella	1
Amanitaceae	Amanitaceae		1
Physalacriaceae	Armillaria luteobubalina		1
Physalacriaceae	Armillaria		1
Parmeliaceae	Austroparmelina chlorolecanorica		1
Serpulaceae	Austropaxillus		1
	Batrachochytrium dendrobatidis	Chytrid Fungus	1
Agaricaceae	Battarrea stevenii		1
Teloschistaceae	Blastenia ferruginea		1
Bolbitiaceae	Bolbitius reticulatus		1
	Boletales		1
Boletaceae	Boletellus ananiceps		1
Caliciaceae	Calicium glaucellum		1
Caliciaceae	Calicium lenticulare		1
Dacrymycetaceae	Calocera sinensis		1
Dacrymycetaceae	Calocera		1
Teloschistaceae	Caloplaca dahlii		1
Teloschistaceae	Caloplaca elixii		1
Teloschistaceae	Caloplaca kaernefeltii		1
Candelariaceae	Candelaria concolor		1
Candelariaceae	Candelariella xanthostigma		1
Candelariaceae	Candelariella		1
Agaricaceae	Chlorophyllum		1
Chrysothricaceae	Chrysothrix		1
Cladoniaceae	Cladia aggregata	Common Coral-lichen	1
Cladoniaceae	Cladia inflata		1
Cladoniaceae	Cladonia cervicornis subsp. verticillata		1
Cladoniaceae	Cladonia krempelhuberi		1
Cladoniaceae	Cladonia tessellata		1
Davidiellaceae	Cladosporium		1
Tricholomataceae	Clitocybe		1
Collemataceae	Collema leucocarpum		1
Tricholomataceae	Conchomyces bursiformis		1

Coniophoraceae	Coniophora puteana	1
Psathyrellaceae	Coprinopsis picacea	1
Cortinariaceae	Cortinarius persplendidus	1
Physciaceae	Cratiria lauricassiae	1
Crepidotaceae	Crepidotaceae	1
Inocybaceae	Crepidotus nephrodes	1
Inocybaceae	Crepidotus uber	1
Corticiaceae	Dendrothele nivosa	1
	Didymella macrostoma	1
	Dilophospora	1
Botryosphaeriaceae	Diplodia	1
Thelotremataceae	Diploschistes thunbergianus	1
Fistulinaceae	Fistulina spiculifera	1
Boletaceae	Fistulinella mollis	1
Parmeliaceae	Flavoparmelia diffractaica	1
Parmeliaceae	Flavoparmelia ferax	1
Parmeliaceae	Flavoparmelia secalonica	1
Parmeliaceae	Flavoparmelia virensica	1
Teloschistaceae	Flavoplaca citrina	1
Hymenochaetaceae	Fomitiporia robusta	1
Geastraceae	Geastrum fornicatum	1
Hysteriaceae	Gloniopsis	1
Gyroporaceae	Gyroporus	1
Physciaceae	Heterodermia speciosa	1
Dacrymycetaceae	Heterotextus peziziformis	1
Hygrophoraceae	Hygrocybe coccinea	1
Hygrophoraceae	Hygrocybe conica	1
Hygrophoraceae	Hygrophoraceae	1
Ophioparmaceae	Hypocenomyce australis	1
Hypocreaceae	Hypocreaceae	1
Parmeliaceae	Hypogymnia subphysodes var. subphysodes	1
Parmeliaceae	Hypogymnia subphysodes	1
Inocybaceae	Inocybe	1
Hydnangiaceae	Laccaria fraterna	1
Hydnangiaceae	Laccaria lateritia	1
Russulaceae	Lactifluus	1
	Lecanoromycetes	1
Auriscalpiaceae	Lentinellus pulvinulus	1
Pertusariaceae	Lepra scaberula	1
Strophariaceae	Leratiomyces	1
Agaricaceae	Leucoagaricus leucothites	1
Tricholomataceae	Leucopaxillus	1
	Lidophia graminis	1
Agaricaceae	Lycoperdon	1
Agaricaceae	Macrolepiota clelandii	1
Morchellaceae	Morchella australiana	1
Mycenaceae	Mycenaceae	1
	Naematelia	1
Parmeliaceae	Notoparmelia erumpens	1
Pertusariaceae	Ochrolechia pallescens	1
	Panaeolina foenisecii	1
	Panaeolus	1
Pannariaceae	Pannaria	1
Parmeliaceae	Pannoparmelia wilsonii	1
Parmeliaceae	Parmotrema cetratum	1
Pertusariaceae	Pertusaria georgeana var. occidentalis	1

	Pezizales	1
Polyporaceae	Phaeotrametes decipiens	1
Phallaceae	Phallus flavocostatus	1
Hymenochaetaceae	Phellinus igniarius	1
Hymenochaetaceae	Phellinus	1
Bankeraceae	Phellodon niger	1
Meruliaceae	Phlebia radiata	1
Strophariaceae	Pholiota communis	1
Strophariaceae	Pholiota	1
Boletaceae	Phylloporus	1
Physciaceae	Physcia jackii	1
Physciaceae	Physcia neonubila	1
Physciaceae	Physcia poncinsii	1
Physciaceae	Physcia stellaris sensu	1
Physciaceae	Physcia undulata	1
Physciaceae	Physciaceae	1
Physciaceae	Physcia	1
Physciaceae	Physconia	1
Sclerodermataceae	Pisolithus marmoratus	1
Placynthiaceae	Placynthium nigrum	1
Placynthiaceae	Placynthium	1
Pleurotaceae	Pleurotus ostreatus	1
Pleurotaceae	Pleurotus	1
Pluteaceae	Pluteus	1
Polyporaceae	Polyporaceae	1
Polyporaceae	Polyporus	1
Porpidiaceae	Porpidia macrocarpa	1
Parmeliaceae	Protoparmelia hesperia	1
Lichinaceae	Pterygiopsis	1
Pucciniaceae	Puccinia calcitrapae	1
Pucciniaceae	Puccinia myrsiphylli	1
Pucciniaceae	Puccinia	1
Parmeliaceae	Punctelia subalbicans	1
Parmeliaceae	Punctelia subrudecta	1
	Pyrenochaeta	1
Ramalinaceae	Ramalina inflata subsp. australis	1
Gomphaceae	Ramaria capitata	1
Lecanoraceae	Ramboldia stuartii	1
Lecanoraceae	Ramboldia	1
Tricholomataceae	Resupinatus applicatus	1
Rhizopogonaceae	Rhizopogon luteolus	1
Microascaceae	Scedosporium aurantiacum	1
Sclerodermataceae	Scleroderma verrucosum	1
	Sclerodermatineae	1
Sclerodermataceae	Scleroderma	1
Mycosphaerellaceae	Septoria aureocorona	1
Pyronemataceae	Sowerbyella rhenana	1
Stereaceae	Stereum hirsutum	1
Strophariaceae	Stropharia aurantiaca	1
Teloschistaceae	Teloschistes sieberianus	1
Tephromelataceae	Tephromela alectoronica	1
Teratosphaeriaceae	Teratosphaeria nubilosa	1
Cladoniaceae	Thysanothecium scutellatum	1
Polyporaceae	Trametes marianna	1
Agyriaceae	Trapeliopsis flexuosa	1
Tremellaceae	Tremella encephala	1

Tremellaceae	Tremella mesenterica	1
Tremellaceae	Tremellaceae	1
Parmeliaceae	Usnea scabrida	1
Parmeliaceae	Usnea subeciliata	1
Ustilaginaceae	Ustilago avenae	1
Ustilaginaceae	Ustilago spinificis	1
Ustilaginaceae	Ustilago	1
Teloschistaceae	Xanthoria parietina	1

Lifeform - Gymnosperms

Number of Gymnosperms **0**

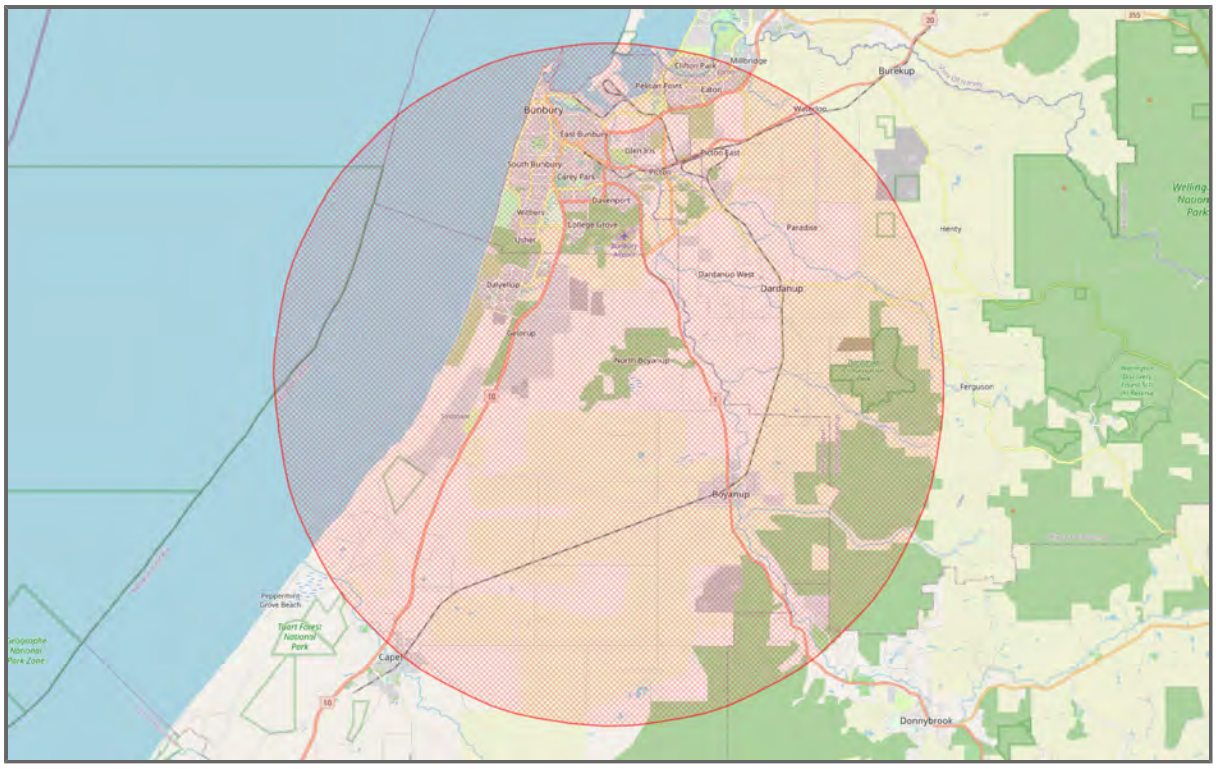

Figure 9 : Map of Lifeform - Gymnosperms

Table 10: Lifeform - Gymnosperms (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences

Lifeform - Monocots

Number of Monocots **655**

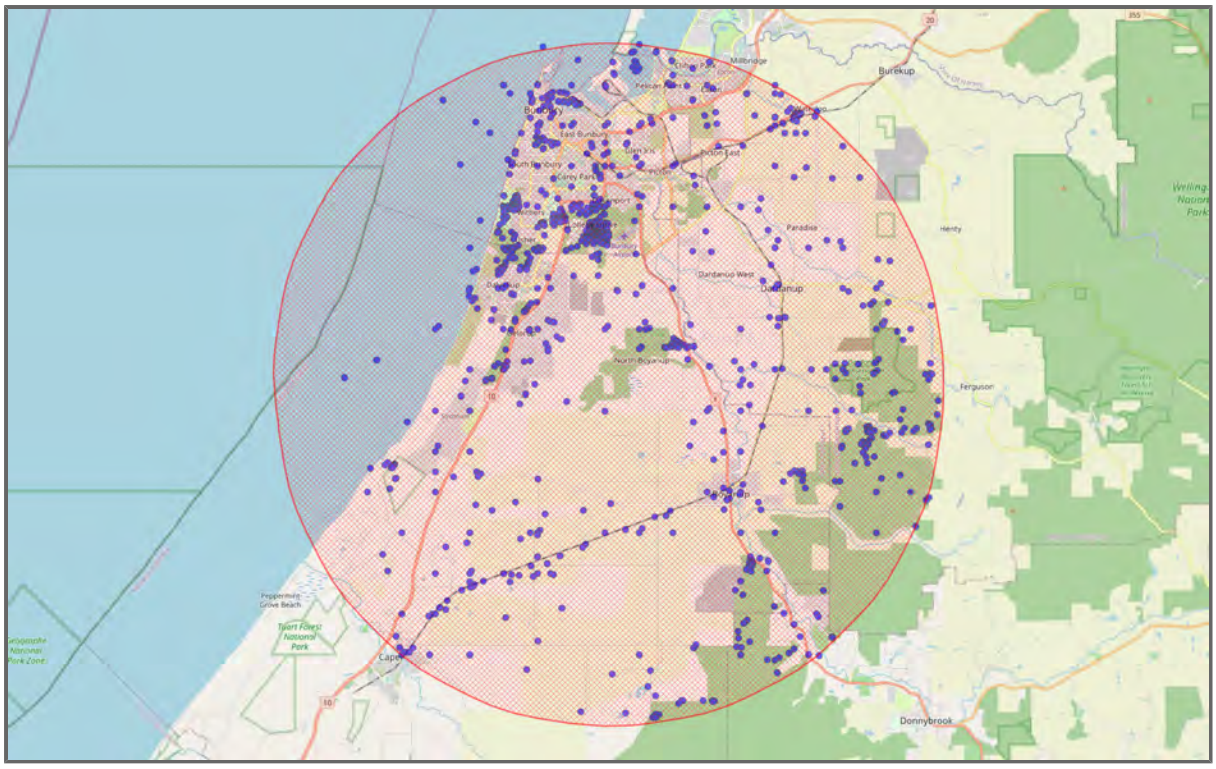

Figure 10 : Map of Lifeform - Monocots

Table 11: Lifeform - Monocots (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Orchidaceae	Caladenia flava	Cowslip Orchid	82
Orchidaceae	Pterostylis vittata	Banded Greenhood	69
Iridaceae	Patersonia occidentalis	Long Purple-flag	65
Poaceae	Briza maxima	Large Quaking-grass	62
Cyperaceae	Lepidosperma squamatum		58
Orchidaceae	Pyrorchis nigricans	Black Fire-orchid	56
Colchicaceae	Burchardia congesta	Milkmaids	54
Restionaceae	Desmocladus fasciculatus		53
Haemodoraceae	Conostylis aculeata	Prickly Conostylis	51
Orchidaceae	Caladenia latifolia	Pink Fairies	49
Asparagaceae	Lomandra hermaphrodita		49
Dasypogonaceae	Dasypogon bromeliifolius	Pineapple Bush	48
Restionaceae	Hypolaena exsulca		47
Orchidaceae	Pterostylis	Greenhoods	44
Orchidaceae	Elythranthera brunonis	Purple Enamel Orchid	42
Asparagaceae	Chamaescilla corymbosa var. corymbosa	Blue Stars	41
Asparagaceae	Lomandra nigricans		40
Cyperaceae	Tetraria octandra		40
Xanthorrhoeaceae	Xanthorrhoea preissii	Grasstree	40
Orchidaceae	Caladenia speciosa	Sandplain White Spider Orchid	39
Haemodoraceae	Phlebocarya ciliata		39
Orchidaceae	Leporella fimbriata	Fringed Hare-orchid	38
Asparagaceae	Lomandra sericea	Silky Mat Rush	38
Orchidaceae	Caladenia flava subsp. flava	Cowslip Orchid	37
Anarthriaceae	Lyginia barbata		37

Asparagaceae	Sowerbaea laxiflora	Vanilla Lily	37
Poaceae	Austrostipa compressa		36
Poaceae	Briza minor	Lesser Quaking-grass	35
Orchidaceae	Pterostylis recurva	Recurved Shell Orchid	35
Iridaceae	Patersonia umbrosa var. xanthina	Yellow Flags	34
Asparagaceae	Lomandra caespitosa	Tufted Mat-rush	33
Poaceae	Aira caryophyllea	Silvery Hairgrass	32
Orchidaceae	Caladenia paludosa	Swamp Spider Orchid	32
Orchidaceae	Pterostylis aspera	Brown-veined Shell Orchid	32
Orchidaceae	Caladenia	Fairy Orchids	30
Orchidaceae	Thelymitra crinita	Blue Lady Orchid	30
Cymodoceaceae	Amphibolis antarctica	Sea Nymph	29
Haemodoraceae	Anigozanthos manglesii	Red And Green Kangaroo Paw	29
Anarthriaceae	Anarthria prolifera		28
Xanthorrhoeaceae	Xanthorrhoea brunonis		28
Orchidaceae	Pterostylis rogersii	Curl Tongue Shell Orchid	27
Poaceae	Rytidosperma occidentale	Western Wallaby Grass	27
Orchidaceae	Eriochilus dilatatus	White Bunny Orchid	26
Asparagaceae	Dichopogon capillipes		25
Orchidaceae	Eriochilus dilatatus subsp. dilatatus	White Bunny Orchid	25
Orchidaceae	Diuris porphyrochila	Yalgorup Donkey Orchid	24
Cyperaceae	Isolepis marginata	Little Club-rush	24
Asparagaceae	Lomandra suaveolens		24
Orchidaceae	Microtis media	Common Mignonette Orchid	24
Xanthorrhoeaceae	Xanthorrhoea gracilis	Graceful Grass Tree	24
Hemerocallidaceae	Agrostocrinum scabrum	Blue Grass Lily	23
Asparagaceae	Chamaescilla corymbosa	Blue Stars	23
Orchidaceae	Caladenia longicauda	White Spider Orchid	22
Centrolepidaceae	Centrolepis drummondiana	Drummond's Centrolepis	22
Orchidaceae	Cyanicula sericea	Silky Blue Orchid	22
Asparagaceae	Lomandra preissii	Preiss' Mat Rush	22
Poaceae	Microlaena stipoides	Weeping Grass	22
Asparagaceae	Acanthocarpus preissii		21
Haemodoraceae	Anigozanthos manglesii subsp. manglesii	Mangles' Kangaroo Paw	21
Hemerocallidaceae	Caesia micrantha	Pale Grass Lily	21
Cyperaceae	Cyathochaeta avenacea		21
Orchidaceae	Disa bracteata	South African Orchid	21
Hemerocallidaceae	Johnsonia acaulis		21
Asparagaceae	Thysanotus manglesianus	Fringed Lily	21
Asparagaceae	Thysanotus multiflorus	Many-flowered Fringe	21
Poaceae	Bromus diandrus	Great Brome	20
Centrolepidaceae	Centrolepis aristata	Pointed Centrolepis	20
Orchidaceae	Pterostylis angusta	Narrow-hooded Shell Orchid	20
Poaceae	Tetrarrhena laevis	Forest Ricegrass	20
Hemerocallidaceae	Johnsonia lupulina	Hooded Lily	19
Orchidaceae	Praecoxanthus aphyllus	Leafless Orchid	19
Poaceae	Austrostipa flavescens	Coast Spear-grass	18
Orchidaceae	Diuris	Donkey Orchids	18
Asparagaceae	Lomandra purpurea	Purple Mat Rush	18
Cyperaceae	Mesomelaena tetragona	Semaphore Sedge	18
Asparagaceae	Thysanotus patersonii	Twining Fringe-lily	18
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	18
Hemerocallidaceae	Agrostocrinum hirsutum	Grass Lily	17
Centrolepidaceae	Aphelia cyperoides		17
Poaceae	Austrostipa semibarbata	Fibrous Spear-grass	17
Orchidaceae	Caladenia chapmanii	Chapman's Spider Orchid	17

Orchidaceae	Elythranthera emarginata	Pink Enamel Orchid	17
Cyperaceae	Lepidosperma longitudinale	Pithy Sword-sedge	17
Iridaceae	Moraea flaccida	One-leaf Cape Tulip	17
Orchidaceae	Pterostylis pyramidalis	Tall Snail Orchid	17
Orchidaceae	Thelymitra macrophylla	Scented Sun Orchid	17
Asparagaceae	Thysanotus sparteus	Leafless Fringed Lily	17
Restionaceae	Desmocladus flexuosus		16
Asparagaceae	Thysanotus thyrsoideus		16
Poaceae	Amphipogon amphipogonoides		15
Dasypogonaceae	Kingia australis	Drumsticks	15
Iridaceae	Orthrosanthus laxus	Morning Iris	15
Orchidaceae	Pterostylis nana	Dwarf Greenhood	15
Poaceae	Amphipogon turbinatus		14
Colchicaceae	Burchardia multiflora	Lesser Burchardia	14
Orchidaceae	Diuris longifolia	Common Donkey Orchid	14
Asparagaceae	Laxmannia sessiliflora subsp. australis		14
Cyperaceae	Lepidosperma angustatum		14
Asparagaceae	Thysanotus arenarius	Sand-dune Fringed Lily	14
Aponogetonaceae	Aponogeton hexatepalus	Stalked Water Ribbons	13
Haemodoraceae	Conostylis setigera subsp. setigera	Bristly Cottonhead	13
Orchidaceae	Cyrtostylis huegelii	Midge Orchid	13
Poaceae	Ehrharta calycina	Perennial Veldt-grass	13
Cyperaceae	Gahnia trifida	Cutting Grass	13
Restionaceae	Hypolaena pubescens		13
Poaceae	Lagurus ovatus	Hare's Tail Grass	13
Cyperaceae	Mesomelaena graciliceps		13
Iridaceae	Patersonia babianoides		13
Orchidaceae	Prasophyllum parvifolium	Autunm Leek Orchid	13
Cyperaceae	Tetraria capillaris	Hair Sedge	13
Xanthorrhoeaceae	Xanthorrhoea acanthostachya		13
Dasypogonaceae	Calectasia narragara	Star Of Bethlehem	12
Cyperaceae	Ficinia nodosa	Knobby Club-rush	12
Zosteraceae	Heterozostera	Garweed	12
Juncaceae	Juncus kraussii	Sea Rush	12
Cyperaceae	Lepidosperma gladiatum	Coast Sword-sedge	12
Restionaceae	Lepyrodia macra	Large Scale Rush	12
Juncaceae	Luzula meridionalis	Common Wood-rush	12
Iridaceae	Patersonia juncea	Rush Leaved Patersonia	12
Orchidaceae	Prasophyllum fimbria	Fringed Leek Orchid	12
Cyperaceae	Schoenus curvifolius		12
Asphodelaceae	Trachyandra divaricata	Dune Onion Weed	12
Cymodoceaceae	Amphibolis griffithii	Griffith's Sea Nymph	11
Orchidaceae	Caladenia attingens subsp. attingens	Forest Mantis Orchid	11
Dasypogonaceae	Dasypogon hookeri	Pineapple Bush	11
Poaceae	Ehrharta longiflora	Annual Veldt-grass	11
Orchidaceae	Microtis media subsp. media	Common Mignonette Orchid	11
Iridaceae	Moraea lewisiae	Golden Iris	11
Asparagaceae	Thysanotus	Fringed Lily	11
Haemodoraceae	Tribonanthes brachypetala	Nodding Tiurndin	11
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. semibarbata		11
Poaceae	Anthoxanthum odoratum	Sweet Vernal-grass	10
Colchicaceae	Burchardia umbellata	Milkmaids	10
Orchidaceae	Caladenia georgei	Tuart Spider Orchid	10
Haemodoraceae	Conostylis laxiflora		10
Orchidaceae	Cyanicula gemmata	Blue China Orchid	10
Poaceae	Dichelachne crinita	Long-hair Plume-grass	10

Haemodoraceae	Haemodorum laxum	Bloodroot	10
Cyperaceae	Lepidosperma	Swordsedges	10
Restionaceae	Leptocarpus decipiens		10
Restionaceae	Leptocarpus roycei		10
Asparagaceae	Lomandra sonderi		10
Asparagaceae	Lomandra	Mat Rushes	10
Orchidaceae	Lyperanthus serratus	Rattle Beaks	10
Poaceae	Neurachne alopecuroidea	Fox-tail Mulga-grass	10
Iridaceae	Romulea rosea	Onion Grass	10
Cyperaceae	Schoenus efoliatus		10
Cyperaceae	Schoenus grandiflorus	Large Flowered Bog-rush	10
Cyperaceae	Schoenus tenellus		10
Poaceae	Avena barbata	Bearded Oats	9
Orchidaceae	Caladenia reptans subsp. reptans	Little Pink Fairies	9
Commelinaceae	Cartonema philydroides		9
Haemodoraceae	Conostylis serrulata		9
Orchidaceae	Diuris jonesii	Dunsborough Donkey Orchid	9
Juncaceae	Juncus bufonius	Toad Rush	9
Orchidaceae	Leptoceras menziesii	Hare Orchid	9
Iridaceae	Orthrosanthus laxus var. laxus	Morning Iris	9
Cyperaceae	Schoenus bifidus		9
Poaceae	Spinifex longifolius	Spinifex	9
Orchidaceae	Thelymitra benthamiana	Leopard Sun-orchid	9
Hemerocallidaceae	Tricoryne tenella	Tufted Yellow Rush-lily	9
Colchicaceae	Wurmbea dioica subsp. alba		9
Poaceae	Amphipogon laguroides		8
Poaceae	Austrostipa campylachne		8
Poaceae	Avena fatua	Wild Oats	8
Orchidaceae	Caladenia discoidea	Dancing Spider Orchid	8
Orchidaceae	Caladenia reptans	Little Pink Fairies	8
Restionaceae	Chaetanthus aristatus	Bearded Twinerush	8
Hemerocallidaceae	Dianella revoluta var. divaricata	Broad-leaf Flax-lily	8
Restionaceae	Lepyrodia glauca		8
Restionaceae	Lepyrodia muirii		8
Cyperaceae	Machaerina juncea	Bare Twig-rush	8
Haemodoraceae	Phlebocarya filifolia		8
Poaceae	Poa poiformis	Coast Tussock-grass	8
Poaceae	Polypogon tenellus		8
Orchidaceae	Prasophyllum plumiforme	Little Leek Orchid	8
Orchidaceae	Prasophyllum	Leek Orchids	8
Orchidaceae	Pterostylis sanguinea	Blood Greenhood	8
Iridaceae	Sparaxis bulbifera	Sparaxis	8
Orchidaceae	Thelymitra flexuosa	Twisted Sun-orchid	8
Orchidaceae	Thelymitra pauciflora	Slender Sun Orchid	8
Poaceae	Vulpia myuros	Fescue	8
Iridaceae	Watsonia meriana var. meriana	Bulbil Watsonia	8
Iridaceae	Watsonia versfeldii	Pink Watsonia	8
Orchidaceae	Caladenia macrostylis	Leaping Spider Orchid	7
Orchidaceae	Caladenia marginata	White Fairy Orchid	7
Haemodoraceae	Conostylis aculeata subsp. aculeata		7
Haemodoraceae	Conostylis setigera	Bristly Cottonhead	7
Orchidaceae	Diuris filifolia	Cat's-face Orchid	7
Haemodoraceae	Haemodorum spicatum	Bohn	7
Cyperaceae	Isolepis cernua	Nodding Club Rush	7
Cyperaceae	Isolepis oldfieldiana		7
Juncaceae	Juncus holoschoenus	Joint-leaf Rush	7

Cyperaceae	Lepidosperma pubisquameum		7
Asparagaceae	Lomandra spartea		7
Anarthriaceae	Lyginia imberbis		7
Philydraceae	Philydrella pygmaea subsp. pygmaea		7
Poaceae	Poa drummondiana	Knotted Poa	7
Posidoniaceae	Posidonia sinuosa	Narrow-leaf Tapeweed	7
Orchidaceae	Prasophyllum giganteum	Bronze Leek Orchid	7
Cyperaceae	Schoenus sculptus	Gimlet Bog-rush	7
Orchidaceae	Thelymitra	Sun Orchids	7
Asparagaceae	Thysanotus tenellus	Grassy Fringe-lily	7
Haemodoraceae	Anigozanthos humilis subsp. humilis	Catspaw	6
Haemodoraceae	Anigozanthos	Kangaroo Paw	6
Cyperaceae	Carex thecata		6
Haemodoraceae	Conostylis		6
Poaceae	Deyeuxia quadriseta	Slender Reed Bent-grass	6
Orchidaceae	Diuris corymbosa	Common Donkey Orchid	6
Orchidaceae	Drakaea livida	Warty Hammer Orchid	6
Cyperaceae	Eleocharis keigheryi	Keighery's Eleocharis	6
Iridaceae	Freesia	Freesia	6
Cyperaceae	Lepidosperma scabrum	Scabrid Sword-sedge	6
Asparagaceae	Lomandra micrantha	Small-flower Mat-rush	6
Cyperaceae	Machaerina arthrophylla	Baumea	6
Orchidaceae	Pterostylis barbata	Bird Orchid	6
Orchidaceae	Pterostylis crispula	Slender Snail Orchid	6
Orchidaceae	Pterostylis sp. crinkled leaf (G.J.Keighery 13426)		6
Poaceae	Rytidosperma pilosum	Large Velvet Wallaby-grass	6
Cyperaceae	Schoenoplectus pungens	Spiky Club-rush	6
Cyperaceae	Schoenus odontocarpus		6
Cyperaceae	Schoenus plumosus		6
Cyperaceae	Schoenus rigens		6
Poaceae	Sporobolus virginicus	Marine Couch	6
Haemodoraceae	Tribonanthes australis	Southern Tiurndin	6
Hemerocallidaceae	Tricoryne humilis		6
Juncaginaceae	Triglochin mucronata	Prickly Arrowgrass	6
Araceae	Zantedeschia aethiopica	White Arum Lily	6
Amaryllidaceae	Amaryllis belladonna	Belladonna Lily	5
Poaceae	Amphibromus nervosus	Swamp Wallaby Grass	5
Asparagaceae	Asparagus asparagoides	Western Cape Bridal Creeper	5
Iridaceae	Babiana angustifolia	Baboon Flower	5
Boryaceae	Borya scirpoidea		5
Poaceae	Bromus arenarius	Sand Brome	5
Hemerocallidaceae	Caesia occidentalis	Pale Grass Lily	5
Orchidaceae	Caladenia arrecta	Reaching Spider Orchid	5
Orchidaceae	Caladenia longicauda subsp. longicauda	White Spider Orchid	5
Orchidaceae	Caleana nigrita		5
Centrolepidaceae	Centrolepis polygyna	Wiry Centrolepis	5
Cyperaceae	Chorizandra enodis	Black Bristle-sedge	5
Poaceae	Cortaderia selloana subsp. selloana	Pampas Grass	5
Orchidaceae	Cryptostylis ovata	Tongue Orchid	5
Poaceae	Cynodon dactylon	Couch	5
Cyperaceae	Cyperus eragrostis	Drain Flat-sedge	5
Cyperaceae	Cyperus tenuiflorus	Scaly Sedge	5
Cyperaceae	Evandra pauciflora		5
Haemodoraceae	Haemodorum simplex		5
Cyperaceae	Isolepis cyperoides		5
Cyperaceae	Isolepis levynsiana	Tiny Flat-sedge	5

Asparagaceae	Lomandra integra		5
Asparagaceae	Lomandra micrantha subsp. micrantha	Small-flower Mat-rush	5
Orchidaceae	Microtis	Onion Orchids	5
Iridaceae	Patersonia umbrosa	Yellow Flags	5
Poaceae	Phalaris angusta		5
Iridaceae	Romulea rosea var. australis	Guilford Grass	5
Orchidaceae	Thelymitra graminea	Shy Sun Orchid	5
Haemodoraceae	Tribonanthes longipetala	Branching Tiurndin	5
Cyperaceae	Tricostularia neesii var. neesii		5
Poaceae	Vulpia bromoides	Squirrel-tail Fescue	5
Hemerocallidaceae	Agrostocrinum		4
Poaceae	Bromus catharticus	Prairie Grass	4
Orchidaceae	Caladenia attingens	Forest Mantis Orchid	4
Orchidaceae	Caladenia hirta subsp. hirta	Sugar Candy Orchid	4
Orchidaceae	Caladenia longicauda subsp. eminens	Stark White Spider Orchid	4
Orchidaceae	Caladenia nobilis	Noble Spider Orchid	4
Orchidaceae	Caladenia pectinata	King Spider Orchid	4
Orchidaceae	Caladenia vulgata	Spider Orchid	4
Poaceae	Calamagrostis arenaria	Marram Grass	4
Cyperaceae	Carex tereticaulis	Poong'ort	4
Cyperaceae	Caustis sp. Boyanup (G.S.McCutcheon 1706)		4
Centrolepidaceae	Centrolepis glabra	Smooth Centrolepis	4
Centrolepidaceae	Centrolepis mutica		4
Hemerocallidaceae	Corynotheca micrantha var. micrantha	Sand Lily	4
Juncaginaceae	Cycnogeton lineare		4
Cyperaceae	Cyperaceae	Button Rush	4
Orchidaceae	Diuris cruenta	Kermerton [sic; Kemerton] Donkey Orchid	4
Orchidaceae	Diuris magnifica	Pansy Orchid	4
Orchidaceae	Diuris tinctoria	Sandplain Donkey Orchid	4
Orchidaceae	Eriochilus scaber subsp. scaber	Pink Bunny Orchid	4
Iridaceae	Ferraria crispa	Black Flag	4
Haemodoraceae	Haemodorum sparsiflorum	Mardja	4
Juncaceae	Juncus capitatus	Dwarf Rush	4
Poaceae	Lachnagrostis plebeia	Coarse Blowngrass	4
Asparagaceae	Laxmannia sessiliflora	Nodding Lily	4
Asparagaceae	Lomandra brittanii		4
Asparagaceae	Lomandra nutans		4
Asparagaceae	Lomandra odora	Fragrant Mat Rush	4
Orchidaceae	Orchidaceae	Orchids	4
Asparagaceae	Ornithogalum arabicum	Star Of Africa	4
Poaceae	Paspalum dilatatum	Paspalum	4
Iridaceae	Patersonia limbata		4
Philydraceae	Philydrella pygmaea	Lesser Butterfly Flowers	4
Posidoniaceae	Posidonia angustifolia	Narrow-leaf Tapeweed	4
Orchidaceae	Prasophyllum hians	Yawning Leek Orchid	4
Orchidaceae	Pterostylis robusta	Large Striped Greenhood	4
Cyperaceae	Schoenus benthamii		4
Cyperaceae	Schoenus		4
Poaceae	Sorghum halepense	Johnson Grass	4
Orchidaceae	Thelymitra antennifera	Lemon Sun-orchid	4
Asparagaceae	Thysanotus pseudojunceus		4
Iridaceae	Watsonia knysnana		4
Iridaceae	Watsonia marginata	Bordered Watsonia	4
Iridaceae	Watsonia	Watsonia	4
Poaceae	Amphipogon laguroides subsp. laguroides		3
Haemodoraceae	Anigozanthos humilis	Common Catspaw	3

Haemodoraceae	Anigozanthos viridis	Green Kangaroo Paw	3
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	3
Boryaceae	Borya sphaerocephala	Pincushions	3
Orchidaceae	Caladenia hirta	Sugar Candy Orchid	3
Orchidaceae	Caladenia huegelii	Grand Spider Orchid	3
Orchidaceae	Caladenia lobata	Butterfly Orchid	3
Orchidaceae	Caladenia nana subsp. nana	Little Pink Fan Orchid	3
Orchidaceae	Caladenia nana	Pink Fan Orchid	3
Orchidaceae	Caladenia pendens subsp. pendens	Pendant Spider Orchid	3
Cannaceae	Canna x generalis	Canna	3
Cyperaceae	Carex divisa	Divided Sedge	3
Poaceae	Cenchrus clandestinus	Kikuyu	3
Asparagaceae	Chamaexeros serra		3
Haemodoraceae	Conostylis aculeata subsp. preissii		3
Haemodoraceae	Conostylis aurea		3
Hemerocallidaceae	Corynotheca micrantha	Sand Lily	3
Orchidaceae	Cyrtostylis robusta	Large Gnat-orchid	3
Hemerocallidaceae	Dianella revoluta	Blueberry Lily	3
Orchidaceae	Diuris maculata	Spotted Doubletail	3
Orchidaceae	Drakaea glyptodon	King-in-his-carriage	3
Cyperaceae	Eleocharis acuta	Common Spike-sedge	3
Iridaceae	Gladiolus undulatus	Wild Gladiolus	3
Iridaceae	Ixia maculata	Yellow Ixia	3
Iridaceae	Ixia paniculata	Long-tube Ixia	3
Juncaceae	Juncus pallidus	Pale Rush	3
Poaceae	Lachnagrostis filiformis	Common Blown-grass	3
Cyperaceae	Lepidosperma tenue		3
Restionaceae	Leptocarpus canus	Hoary Twine-rush	3
Restionaceae	Leptocarpus scariosus		3
Amaryllidaceae	Leucojum aestivum	Snowflake	3
Poaceae	Lolium multiflorum	Italian Ryegrass	3
Poaceae	Lolium perenne	Perennial Rye-grass	3
Poaceae	Lolium rigidum	Wimmera Ryegrass	3
Asparagaceae	Lomandra whicherensis		3
Hypoxidaceae	Pauridia glabella		3
Hypoxidaceae	Pauridia occidentalis var. quadriloba		3
Philydraceae	Philydrella drummondii	Greater Butterfly Flowers	3
Poaceae	Poaceae	Grasses	3
Posidoniaceae	Posidonia	Tapeweed	3
Orchidaceae	Pterostylis ectypha	Thick-sepaled Snail Orchid	3
Orchidaceae	Pterostylis erubescens	Red-sepaled Snail Orchid	3
Orchidaceae	Pterostylis sp. Bloated snail orchid (W.Jackson BJ486)		3
Orchidaceae	Pterostylis turfosa	Bearded Bird Orchid	3
Iridaceae	Romulea rosea var. communis	Onion Grass	3
Poaceae	Rytidosperma setaceum	Small-flower Wallaby-grass	3
Cyperaceae	Schoenus brevisetis		3
Cyperaceae	Schoenus sublateralis		3
Cyperaceae	Schoenus variicellae		3
Poaceae	Spinifex hirsutus	Rolling Spinifex	3
Orchidaceae	Thelymitra vulgaris	Slender Sun Orchid	3
Asparagaceae	Thysanotus gracilis		3
Asparagaceae	Thysanotus pauciflorus		3
Iridaceae	Tritonia crocata	Orange Tritonia	3
Iridaceae	Watsonia meriana var. bulbillifera	Bulbil Watsonia	3
Iridaceae	Watsonia meriana	Bugle Lily	3
Hemerocallidaceae	Agrostocrinum scabrum subsp. scabrum		2

Poaceae	Aira cupaniana	Quicksilver Grass	2
Potamogetonaceae	Althenia		2
Anarthriaceae	Anarthria scabra		2
Haemodoraceae	Anigozanthos manglesii var. x angustifolius		2
Haemodoraceae	Anigozanthos viridis subsp. viridis		2
Poaceae	Anthosachne scabra	Wheatgrass	2
Asparagaceae	Arthropodium	Vanilla Lilies	2
Asparagaceae	Asparagus plumosus	Ferny Climbing Asparagus Fern	2
Poaceae	Austrostipa bronweniae		2
Poaceae	Austrostipa jacobsiana		2
Poaceae	Austrostipa pycnostachya		2
Poaceae	Austrostipa	Spear-grasses	2
Poaceae	Avellinia festucoides	Avellinia	2
Poaceae	Avena sativa	Oats	2
Orchidaceae	Caladenia denticulata subsp. rubella	Clumped Spider Orchid	2
Orchidaceae	Caladenia ferruginea	Rusty Spider Orchid	2
Orchidaceae	Caladenia filamentosa	Daddy Long-legs	2
Orchidaceae	Caladenia flava subsp. sylvestris	Karri Cowslip Orchid	2
Orchidaceae	Caladenia longicauda subsp. calcigena	Coastal White Spider Orchid	2
Orchidaceae	Caladenia longicauda subsp. clivicola	Hill's White Spider Orchid	2
Orchidaceae	Caladenia uliginosa	Darting Spider Orchid	2
Cyperaceae	Caustis flexuosa	Slender Twist-rush	2
Asparagaceae	Chamaescilla		2
Haemodoraceae	Conostylis aculeata subsp. gracilis		2
Haemodoraceae	Conostylis candicans	Grey Cottonhead	2
Poaceae	Cortaderia selloana	Pampas Grass	2
Juncaginaceae	Cycnogeton procerum	Common Water-ribbons	2
Cyperaceae	Cyperus congestus	Dense Flat-sedge	2
Cyperaceae	Cyperus polystachyos	Bunchy Flat-sedge	2
Orchidaceae	Cyrtostylis	Mosquito Orchids	2
Restionaceae	Cytogonidium leptocarpoides		2
Restionaceae	Desmocladus virgatus		2
Asparagaceae	Dichopogon preissii	Nodding Chocolate Lily	2
Poaceae	Digitaria sanguinalis	Summer Grass	2
Orchidaceae	Diuris brevis	Short-nosed Donkey Orchid	2
Orchidaceae	Diuris laxiflora	Bee Orchid	2
Poaceae	Eleusine indica	Crowsfoot Grass	2
Restionaceae	Empodisma gracillimum	Tanglefoot	2
Poaceae	Eragrostis curvula	African Love-grass	2
Cyperaceae	Gahnia	Saw-sedges	2
Iridaceae	Gladiolus caryophyllaceus	Wild Gladiolus	2
Iridaceae	Gladiolus tristis	Evening-flower Gladiolus	2
Colchicaceae	Gloriosa superba	Glory Lily	2
Poaceae	Glyceria declinata	Manna Grass	2
Haemodoraceae	Haemodorum paniculatum	Mardja	2
Haemodoraceae	Haemodorum	Bloodroot	2
Poaceae	Holcus lanatus	Yorkshire Fog	2
Asparagaceae	Hyacinthoides non-scripta	English Bluebell	2
Cyperaceae	Isolepis fluitans	Floating Club-rush	2
Juncaceae	Juncus articulatus	Jointed Rush	2
Juncaceae	Juncus kraussii subsp. australiensis	Juncus	2
Juncaceae	Juncus microcephalus	Tiny-headed Rush	2
Juncaceae	Juncus polyanthemus		2
Asparagaceae	Lachenalia aloides		2
Cyperaceae	Lepidosperma striatum		2
Restionaceae	Leptocarpus coangustatus		2

Restionaceae	Leptocarpus crebriculmis		2
Restionaceae	Leptocarpus scoparius		2
Restionaceae	Leptocarpus tenax	Slender Twine-rush	2
Restionaceae	Lepyrodia hermaphrodita		2
Liliaceae	Liliaceae		2
Poaceae	Lolium arundinaceum subsp. arundinaceum		2
Poaceae	Lolium	Ryegrass	2
Asparagaceae	Lomandra drummondii		2
Restionaceae	Loxocarya cinerea		2
Cyperaceae	Machaerina rubiginosa	Baumea	2
Orchidaceae	Microtis orbicularis	Swamp Onion-orchid	2
Iridaceae	Moraea ochroleuca	Yellow Cape Tulip	2
Amaryllidaceae	Narcissus tazetta subsp. italicus	Tazetta	2
Alliaceae	Nothoscordum gracile		2
Hydrocharitaceae	Ottelia ovalifolia	Swamp Lily	2
Poaceae	Parapholis incurva	Curly Ryegrass	2
Poaceae	Paspalum distichum	Water Couch	2
Iridaceae	Patersonia		2
Hypoxidaceae	Pauridia occidentalis var. occidentalis		2
Hypoxidaceae	Pauridia vaginata var. vaginata	Yellow Star	2
Poaceae	Phalaris	Canary Grass	2
Orchidaceae	Pheladenia deformis	Bluebeard Orchid	2
Poaceae	Poa annua	Annual Meadow-grass	2
Poaceae	Poa porphyroclados		2
Poaceae	Polypogon monspeliensis	Annual Beardgrass	2
Potamogetonaceae	Potamogeton drummondii	Western Pondweed	2
Orchidaceae	Prasophyllum brownii	Christmas Leek Orchid	2
Orchidaceae	Prasophyllum elatum	Tall Leek-orchid	2
Orchidaceae	Prasophyllum ovale	Little Leek Orchid	2
Orchidaceae	Prasophyllum sp. early (G.Brockman GBB 1626)		2
Orchidaceae	Pterostylis brunneola	Giant Snail Orchid	2
Restionaceae	Restionaceae	Rush	2
Iridaceae	Romulea obscura		2
Poaceae	Rytidosperma caespitosum	Common Wallaby-grass	2
Poaceae	Rytidosperma		2
Cyperaceae	Schoenus asperocarpus	Poison Sedge	2
Cyperaceae	Schoenus breviculmis	Matted Bog-rush	2
Cyperaceae	Schoenus discifer	Tiny Bog-rush	2
Cyperaceae	Schoenus laevigatus	Short-leaf Bog-sedge	2
Cyperaceae	Schoenus subflavus	Yellow Bog-rush	2
Iridaceae	Sisyrinchium rosulatum	Scourweed	2
Restionaceae	Sporadanthus strictus	Erect Scale Rush	2
Poaceae	Stenotaphrum secundatum	Buffalo Grass	2
Cymodoceaceae	Thalassodendron pachyrhizum		2
Orchidaceae	Thelymitra fuscolutea	Chestnut Sun Orchid	2
Orchidaceae	Thelymitra variegata	Queen Of Sheba	2
Orchidaceae	Thelymitra villosa	Custard Orchid	2
Asparagaceae	Thysanotus arbuscula		2
Haemodoraceae	Tribonanthes		2
Cyperaceae	Tricostularia neesii	Nees’ Tricostularia	2
Juncaginaceae	Triglochin striata	Streaked Arrowgrass	2
Juncaginaceae	Triglochin trichophora	Torpedo Arrowgrass	2
Typhaceae	Typha orientalis	Bullrush	2
Typhaceae	Typha	Cumbungi	2
Iridaceae	Watsonia borbonica	Rosy Watsonia	2
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. brunonis	Grasstree	2

Asparagaceae	Acanthocarpus		1
Asparagaceae	Agave americana	Century Plant	1
Asparagaceae	Agave	Agave	1
Poaceae	Aira elegantissima	Delicate Hair-grass	1
Asparagaceae	Albuca bracteata	Pregnant Onion	1
Alliaceae	Allium triquetrum	Angled Onion	1
Poaceae	Amphibromus	Swamp Wallaby Grass	1
Poaceae	Amphipogon debilis		1
Anarthriaceae	Anarthria laevis		1
Haemodoraceae	Anigozanthos bicolor	Little Kangaroo Paw	1
Haemodoraceae	Anigozanthos flavidus	Tall Kangaroo Paw	1
Centrolepidaceae	Aphelia drummondii		1
Poaceae	Aristida holathera var. holathera	Tall Kerosene Grass	1
Asparagaceae	Arthropodium fimbriatum	Nodding Chocolate Lily	1
Asparagaceae	Asparagaceae	Fringed Lily	1
Asparagaceae	Asparagus declinatus	Bridal Veil	1
Poaceae	Austrostipa hemipogon	Half-bearded Spear-grass	1
Poaceae	Austrostipa mollis	Soft Speargrass	1
Poaceae	Austrostipa scabra subsp. scabra	Rough Spear-grass	1
Poaceae	Avena	Oat	1
Iridaceae	Babiana stricta	Baboon-flower	1
Iridaceae	Babiana		1
Colchicaceae	Baeometra uniflora	Baeometra	1
Poaceae	Bambusa	Unidentified Bamboo	1
Cyperaceae	Bolboschoenus		1
Boryaceae	Borya nitida	Pincushions	1
Boryaceae	Borya		1
Asphodelaceae	Bulbine semibarbata	Leek Lily	1
Colchicaceae	Burchardia bairdiae		1
Orchidaceae	Caladenia barbarossa	Dragon Orchid	1
Orchidaceae	Caladenia bicalliata	Spider Orchid	1
Orchidaceae	Caladenia cairnsiana	Zebra Orchid	1
Orchidaceae	Caladenia longiclavata	Clubbed Spider Orchid	1
Orchidaceae	Caladenia magniclavata	Big Clubbed Spider Orchid	1
Orchidaceae	Caladenia nana subsp. unita	Pink Fan Orchid	1
Orchidaceae	Caladenia plicata	Crab-lipped Spider Orchid	1
Orchidaceae	Caladenia splendens	Splendid Spider Orchid	1
Orchidaceae	Caleana brockmanii		1
Orchidaceae	Caleana hortiorum		1
Dasypogonaceae	Calectasia cyanea	Blue Tinsel Lily	1
Cyperaceae	Carex appressa	Tall Sedge	1
Cyperaceae	Carex	Sedges	1
Poaceae	Cenchrus macrourus	African Feather Grass	1
Poaceae	Cenchrus spinifex	Spiny Burr Grass	1
Poaceae	Cenchrus	Buffel Grass	1
Centrolepidaceae	Centrolepis inconspicua		1
Asparagaceae	Chamaescilla gibsonii		1
Iridaceae	Chasmanthe floribunda	African Cornflag	1
Poaceae	Chloris gayana	Rhodes Grass	1
Haemodoraceae	Conostylis candicans subsp. candicans		1
Hemerocallidaceae	Corynotheca micrantha var. elongata		1
Orchidaceae	Cyanicula caerulea	Blue Fairy	1
Orchidaceae	Cyanicula	Blue Orchids	1
Juncaginaceae	Cycnogeton		1
Poaceae	Cynosurus echinatus	Rough Dog's Tail	1
Cyperaceae	Cyperus involucratus	Umbrella Plant	1

Cyperaceae	Cyperus laevigatus	Nutgrass	1
Cyperaceae	Cyperus latzii	Nutgrass	1
Cyperaceae	Cyperus		1
Poaceae	Dactylis glomerata	Cocksfoot	1
Hemerocallidaceae	Dianella brevicaulis	Small-flower Flax-lily	1
Orchidaceae	Diuris amplissima	Giant Donkey Orchid	1
Orchidaceae	Diuris brumalis	Winter Donkey Orchid	1
Orchidaceae	Diuris carinata	Tall Bee Orchid	1
Orchidaceae	Diuris drummondii	Tall Donkey Orchid	1
Orchidaceae	Drakaea micrantha	Dwarf Hammer Orchid	1
Orchidaceae	Drakaea	Hammer Orchids	1
Poaceae	Eragrostis brownii	Bentham's Love-grass	1
Poaceae	Eragrostis elongata	Lovegrass	1
Orchidaceae	Eriochilus dilatatus subsp. magnus	Easter Bunny Orchid	1
Orchidaceae	Eriochilus scaber	Pink Bunny Orchid	1
Orchidaceae	Eriochilus	Bunny Orchids	1
Cyperaceae	Evandra aristata	Zebra Sedge	1
Cyperaceae	Fimbristylis velata	Veiled Fringe-rush	1
Iridaceae	Freesia leichtlinii	Freesia	1
Cyperaceae	Gahnia decomposita		1
Iridaceae	Gladiolus carneus	Broad-leaf Painted Lady	1
Iridaceae	Gladiolus communis subsp. byzantinus	Byzantine Gladiolus	1
Hydrocharitaceae	Halophila ovalis	Halophila	1
Poaceae	Hemarthria uncinata var. uncinata	Mat Grass	1
Poaceae	Hemarthria uncinata	Matgrass	1
Hemerocallidaceae	Hodgsoniola junciformis		1
Poaceae	Hordeum leporinum	Barley Grass	1
Poaceae	Hordeum marinum	Sea Barley-grass	1
Asparagaceae	Hyacinthoides	Wood Hyacinth	1
Restionaceae	Hypolaena fastigiata	Tassel Rope Rush	1
Hypoxidaceae	Hypoxidaceae		1
Cyperaceae	Isolepis prolifera	Proliferous Club-sedge	1
Iridaceae	Ixia cultivar	Ixia	1
Juncaceae	Juncus caespiticius	Grassy Rush	1
Juncaceae	Juncus hybridus		1
Juncaceae	Juncus subsecundus	Finger Rush	1
Juncaceae	Juncus	Rushes	1
Asparagaceae	Lachenalia flava		1
Asparagaceae	Lachenalia	Lachenalia	1
Asparagaceae	Laxmannia minor		1
Asparagaceae	Laxmannia ramosa subsp. ramosa	Branching Lily	1
Cyperaceae	Lepidosperma calcicola		1
Cyperaceae	Lepidosperma costale		1
Cyperaceae	Lepidosperma effusum	Spreading Sword-sedge	1
Cyperaceae	Lepidosperma leptostachyum		1
Cyperaceae	Lepidosperma sp. Blackwood (R.Davis 7696)		1
Cyperaceae	Lepidosperma sp. Margaret River (B.J.Lepschi 1841)		1
Orchidaceae	Leporella	Fringed Hare-orchid	1
Restionaceae	Leptocarpus denmarkicus		1
Restionaceae	Leptocarpus laxus		1
Restionaceae	Leptocarpus thysananthus		1
Restionaceae	Leptocarpus trisepalus		1
Restionaceae	Leptocarpus		1
Restionaceae	Lepyrodia		1
Poaceae	Lolium x hybridum	Hybrid Ryegrass	1
Asparagaceae	Lomandra maritima	Maritime Mat Rush	1

Asparagaceae	Lomandra micrantha subsp. tuberculata	Small-flowered Mat-rush	1
Asparagaceae	Lomandra pauciflora		1
Cyperaceae	Machaerina articulata	Jointed Twig-rush	1
Cyperaceae	Machaerina vaginalis		1
Poaceae	Melinis repens	Red Natal-grass	1
Cyperaceae	Mesomelaena stygia subsp. stygia		1
Cyperaceae	Mesomelaena stygia		1
Poaceae	Microlaena stipoides var. stipoides	Weeping Rice-grass	1
Orchidaceae	Microtis alba	White Mignonette Orchid	1
Orchidaceae	Microtis cupularis	Cupped Mignonette Orchid	1
Orchidaceae	Microtis media subsp. densiflora	Dense Mignonette Orchid	1
Orchidaceae	Microtis quadrata	South Coast Mignonette Orchid	1
Orchidaceae	Microtis unifolia	Common Onion Orchid	1
Iridaceae	Moraea miniata	Two-leaf Cape Tulip	1
Amaryllidaceae	Narcissus pseudonarcissus	Common Daffodil	1
Amaryllidaceae	Narcissus tazetta	Polyanthus Narcissus	1
Asparagaceae	Ornithogalum thyrsoides	Chincherinchee	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Poaceae	Panicum capillare	Common Millet	1
Poaceae	Paspalum vaginatum	Water Couch	1
Poaceae	Paspalum	Paspalum	1
Iridaceae	Patersonia occidentalis var. occidentalis	Long Purple-flag	1
Hypoxidaceae	Pauridia occidentalis		1
Hypoxidaceae	Pauridia		1
Poaceae	Phalaris aquatica	Phalaris	1
Poaceae	Phalaris minor	Lesser Canary-grass	1
Poaceae	Poa labillardierei	Common Tussock-grass	1
Poaceae	Poa poiformis var. poiformis	Coast Tussock-grass	1
Potamogetonaceae	Potamogeton	Pondweeds	1
Orchidaceae	Prasophyllum cyphochilum	Pouched Leek Orchid	1
Orchidaceae	Prasophyllum drummondii	Swamp Leek Orchid	1
Orchidaceae	Prasophyllum gracillimum	Slender Leek Orchid	1
Orchidaceae	Pterostylis actites	Coastal Short-eared Snail Orchid	1
Orchidaceae	Pterostylis glebosa	Clubbed Snail Orchid	1
Orchidaceae	Pterostylis serotina	Late Bird Orchid	1
Iridaceae	Romulea flava var. minor	Yellow Onion-grass	1
Iridaceae	Romulea flava		1
Poaceae	Rytidosperma acerosum		1
Poaceae	Rytidosperma duttonianum	Brown-back Wallaby-grass	1
Poaceae	Rytidosperma penicillatum	Slender Wallaby Grass	1
Cyperaceae	Schoenus elegans		1
Cyperaceae	Schoenus loliaceus		1
Cyperaceae	Schoenus sp. Little black fruit (A.C.Beauglehole ACB 12538)		1
Cyperaceae	Schoenus subbarbatus	Bearded Bog-rush	1
Cyperaceae	Schoenus subbulbosus		1
Cyperaceae	Schoenus subfascicularis		1
Asparagaceae	Scilla peruviana	Cuban Lily	1
Poaceae	Setaria palmifolia	Palm Grass	1
Poaceae	Sorghum x drummondii		1
Poaceae	Spinifex		1
Strelitziaceae	Strelitzia nicolai	Giant Bird Of Paradise	1
Orchidaceae	Thelymitra campanulata	Shirt Orchid	1
Orchidaceae	Thelymitra holmesii	Blue-star Sun-orchid	1
Orchidaceae	Thelymitra paludosa	Plain Sun Orchid	1
Poaceae	Themeda triandra	Kangaroo Grass	1
Asparagaceae	Thysanotus dichotomus	Branching Fringe Lily	1

Asparagaceae	Thysanotus tuberosus	Common Fringe-lily	1
Hemerocallidaceae	Tricoryne		1
Cyperaceae	Tricostularia aphylla	Medusa Sedge	1
Juncaginaceae	Triglochin centrocarpa	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin isingiana	Spurred Arrowgrass	1
Juncaginaceae	Triglochin nana	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin	Lilaea	1
Typhaceae	Typha domingensis	Cumbungi	1
Poaceae	Vulpia fasciculata	Sand Fescue	1
Poaceae	Vulpia myuros f. myuros	Rat's-tail Fescue	1
Colchicaceae	Wurmbea monantha		1
Colchicaceae	Wurmbea sp. Cranbrook (A.R.Annels 3819)		1
Colchicaceae	Wurmbea tenella	Eight Nancy	1
Colchicaceae	Wurmbea		1

Lifeform - Plants

Number of Plants **1968**

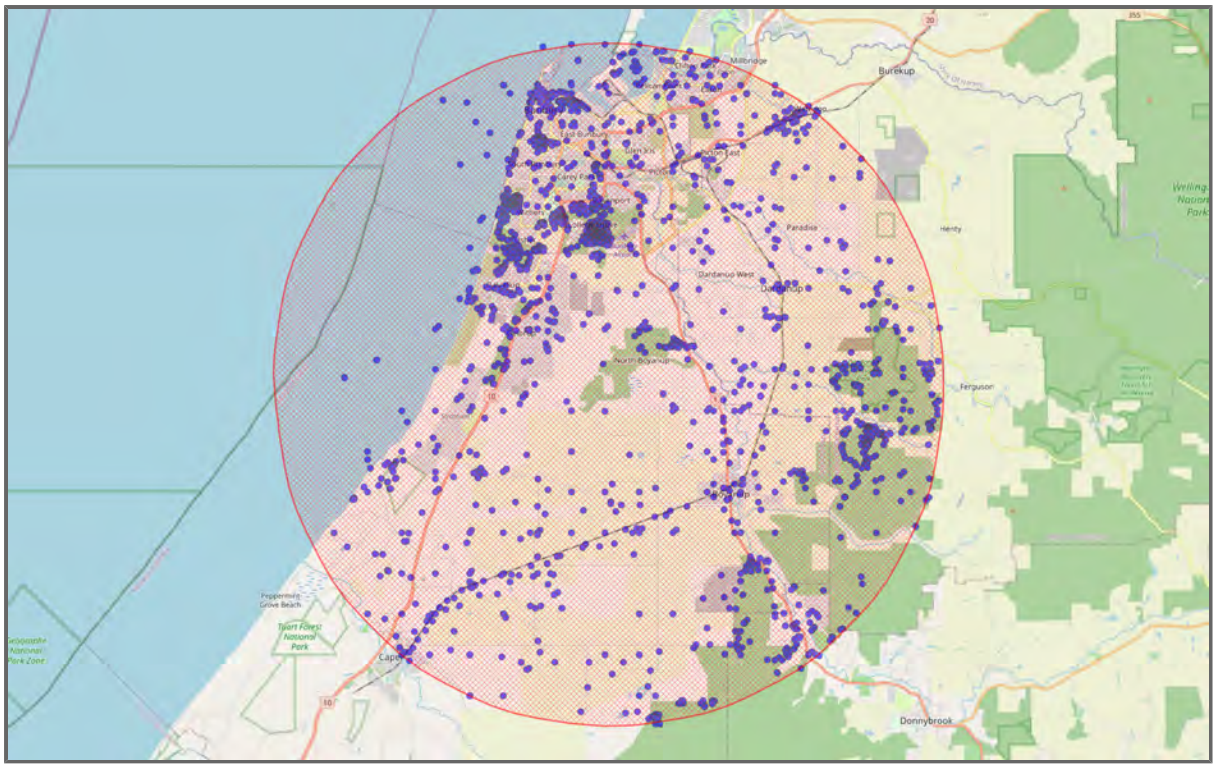

Figure 11 : Map of Lifeform - Plants

Table 12: Lifeform - Plants (Link to full list)

Family	*Scientific Name*	Common Name	No. Occurrences
Rhodomelaceae	Rhodomelaceae		193
Dilleniaceae	Hibbertia hypericoides	Yellow Buttercups	96
Corallinaceae	Amphiroa anceps		94
Corallinaceae	Corallinaceae		91
Rhodomelaceae	Laurencia		85
Orchidaceae	Caladenia flava	Cowslip Orchid	82
Proteaceae	Banksia attenuata	Coast Banksia	80
Caulerpaceae	Caulerpa		76
Asteraceae	Hypochaeris glabra	Smooth Cat's Ear	74
Rutaceae	Philotheca spicata	Pepper And Salt	74
Fabaceae	Bossiaea eriocarpa	Common Brown Pea	70
Proteaceae	Xylomelum occidentale	Woody Pear	70
Proteaceae	Petrophile linearis	Pixie Mops	69
Orchidaceae	Pterostylis vittata	Banded Greenhood	69
Iridaceae	Patersonia occidentalis	Long Purple-flag	65
Goodeniaceae	Dampiera linearis	Wedge-leaved Dampiera	64
Poaceae	Briza maxima	Large Quaking-grass	62
Myrtaceae	Hypocalymma robustum	Swan River Myrtle	61
Araliaceae	Trachymene pilosa	Dwarf Trachymene	61
Apiaceae	Xanthosia huegelii	Hairy Xanthosia	61
Fabaceae	Hardenbergia comptoniana	Western Australian Coral-pea	60
Cyperaceae	Lepidosperma squamatum		58
Orchidaceae	Pyrorchis nigricans	Black Fire-orchid	56
Zamiaceae	Macrozamia riedlei	Zamia Palm	55

Colchicaceae	Burchardia congesta	Milkmaids	54
Fabaceae	Acacia pulchella	Prickly Moses	53
Restionaceae	Desmocladus fasciculatus		53
Fabaceae	Daviesia physodes		52
Rutaceae	Boronia dichotoma		51
Haemodoraceae	Conostylis aculeata	Prickly Conostylis	51
Proteaceae	Adenanthos meisneri		49
Proteaceae	Banksia grandis	Giant Banksia	49
Orchidaceae	Caladenia latifolia	Pink Fairies	49
Asparagaceae	Lomandra hermaphrodita		49
Proteaceae	Stirlingia latifolia	Blueboy	49
Dasypogonaceae	Dasypogon bromeliifolius	Pineapple Bush	48
Rhodomelaceae	Echinothamnion hystrix		48
Myrtaceae	Eucalyptus marginata subsp. marginata	Jarrah	47
Dilleniaceae	Hibbertia diamesogenos		47
Restionaceae	Hypolaena exsulca		47
Myrtaceae	Melaleuca thymoides		47
Myrtaceae	Agonis flexuosa	Willow Myrtle	45
Orchidaceae	Pterostylis	Greenhoods	44
Fabaceae	Kennedia prostrata	Scarlet Runner	43
Orchidaceae	Elythranthera brunonis	Purple Enamel Orchid	42
Dilleniaceae	Hibbertia vaginata		42
Loranthaceae	Nuytsia floribunda	Western Australian Christmas Tree	42
Asparagaceae	Chamaescilla corymbosa var. corymbosa	Blue Stars	41
Acanthaceae	Avicennia marina	White Mangrove	40
Fabaceae	Gompholobium tomentosum	Hairy Yellow Pea	40
Dasyaceae	Heterosiphonia		40
Asparagaceae	Lomandra nigricans		40
Cyperaceae	Tetraria octandra		40
Xanthorrhoeaceae	Xanthorrhoea preissii	Grasstree	40
Fabaceae	Acacia stenoptera	Narrow-winged Wattle	39
Orchidaceae	Caladenia speciosa	Sandplain White Spider Orchid	39
Haemodoraceae	Phlebocarya ciliata		39
Phyllanthaceae	Phyllanthus calycinus	Snowdrop Spurge	39
Droseraceae	Drosera drummondii		38
Fabaceae	Jacksonia horrida		38
Fabaceae	Kennedia coccinea	Coral Vine	38
Orchidaceae	Leporella fimbriata	Fringed Hare-orchid	38
Asparagaceae	Lomandra sericea	Silky Mat Rush	38
Proteaceae	Banksia dallanneyi		37
Orchidaceae	Caladenia flava subsp. flava	Cowslip Orchid	37
Gracilariaceae	Gracilaria	Gracilaria	37
Dilleniaceae	Hibbertia racemosa	Stalked Guinea Flower	37
Goodeniaceae	Lechenaultia biloba	Blue Leschenaultia	37
Anarthriaceae	Lyginia barbata		37
Asparagaceae	Sowerbaea laxiflora	Vanilla Lily	37
Spyridiaceae	Spyridia dasyoides		37
Fabaceae	Acacia extensa	Wiry Wattle	36
Poaceae	Austrostipa compressa		36
Ceramiaceae	Ceramiaceae		36
Myrtaceae	Corymbia calophylla	Marri	36
Poaceae	Briza minor	Lesser Quaking-grass	35
Dilleniaceae	Hibbertia stellaris	Guinea Flower	35
Fabaceae	Hovea trisperma	Common Hovea	35
Proteaceae	Persoonia longifolia	Snottygobble	35
Orchidaceae	Pterostylis recurva	Recurved Shell Orchid	35

Rutaceae	Boronia spathulata	Boronia	34
Lamiaceae	Hemiandra pungens	Snakebush	34
Myrtaceae	Hypocalymma angustifolium	White Myrtle	34
Iridaceae	Patersonia umbrosa var. xanthina	Yellow Flags	34
Elaeocarpaceae	Platytheca galioides		34
Stylidiaceae	Stylidium schoenoides	Cow Kicks	34
Asparagaceae	Lomandra caespitosa	Tufted Mat-rush	33
Poaceae	Aira caryophyllea	Silvery Hairgrass	32
Orchidaceae	Caladenia paludosa	Swamp Spider Orchid	32
Ericaceae	Conostephium pendulum	Pearl Flower	32
Myrtaceae	Eucalyptus gomphocephala	Tuart	32
Orchidaceae	Pterostylis aspera	Brown-veined Shell Orchid	32
Dilleniaceae	Hibbertia cuneiformis	Cutleaf Hibbertia	31
Apiaceae	Platysace tenuissima		31
Goodeniaceae	Scaevola calliptera	Royal Robe	31
Orchidaceae	Caladenia	Fairy Orchids	30
Droseraceae	Drosera pallida	Pale Rainbow	30
Fabaceae	Gompholobium polymorphum		30
Fabaceae	Jacksonia furcellata	Grey Stinkwood	30
Ericaceae	Leucopogon conostephioides		30
Stylidiaceae	Stylidium brunonianum	Pink Fountain Triggerplant	30
Stylidiaceae	Stylidium piliferum	Common Butterfly Triggerplant	30
Orchidaceae	Thelymitra crinita	Blue Lady Orchid	30
Cymodoceaceae	Amphibolis antarctica	Sea Nymph	29
Haemodoraceae	Anigozanthos manglesii	Red And Green Kangaroo Paw	29
Proteaceae	Isopogon sphaerocephalus	Drumstick Isopogon	29
Stylidiaceae	Levenhookia pusilla	Tiny Stylewort	29
Anarthriaceae	Anarthria prolifera		28
Ericaceae	Astroloma pallidum	Kick Bush	28
Proteaceae	Banksia ilicifolia	Holly Leaved Banksia	28
Xanthorrhoeaceae	Xanthorrhoea brunonis		28
Fabaceae	Eutaxia virgata		27
	Florideophyceae		27
Wrangeliaceae	Griffithsia monilis		27
Asteraceae	Lagenophora huegelii	Coarse Bottle-daisy	27
Orchidaceae	Pterostylis rogersii	Curl Tongue Shell Orchid	27
Poaceae	Rytidosperma occidentale	Western Wallaby Grass	27
Fabaceae	Acacia cochlearis	Rigid Wattle	26
Fabaceae	Acacia saligna	Golden Wreath Wattle	26
Fabaceae	Acacia willdenowiana	Grass Wattle	26
Rutaceae	Diplolaena dampieri	Southern Diplolaena	26
Orchidaceae	Eriochilus dilatatus	White Bunny Orchid	26
Dilleniaceae	Hibbertia cunninghamii		26
Ericaceae	Leucopogon propinquus		26
Myrtaceae	Melaleuca	Tea-tree	26
Lauraceae	Cassytha racemosa	Dodder Laurel	25
Asparagaceae	Dichopogon capillipes		25
Orchidaceae	Eriochilus dilatatus subsp. dilatatus	White Bunny Orchid	25
Proteaceae	Hakea cyclocarpa	Ramshorn	25
Fabaceae	Acacia applanata	Grass Wattle	24
Apiaceae	Daucus glochidiatus	Native Carrot	24
Orchidaceae	Diuris porphyrochila	Yalgorup Donkey Orchid	24
Fabaceae	Gastrolobium capitatum	Bacon And Eggs	24
Fabaceae	Gompholobium knightianum	Knight's Wedge-pea	24
Cyperaceae	Isolepis marginata	Little Club-rush	24
Asparagaceae	Lomandra suaveolens		24

Myrtaceae	Melaleuca rhaphiophylla	Swamp Paperbark	24
Orchidaceae	Microtis media	Common Mignonette Orchid	24
Myrtaceae	Paragonis grandiflora		24
Rhodymeniaceae	Rhodymenia sonderi		24
Solieriaceae	Solieria robusta		24
Xanthorrhoeaceae	Xanthorrhoea gracilis	Graceful Grass Tree	24
Hemerocallidaceae	Agrostocrinum scabrum	Blue Grass Lily	23
Proteaceae	Banksia littoralis	Swamp Banksia	23
Asparagaceae	Chamaescilla corymbosa	Blue Stars	23
Myrtaceae	Corymbia haematoxylon	Mountain Marri	23
Droseraceae	Drosera erythrorhiza	Red Ink Sundew	23
Proteaceae	Hakea amplexicaulis	Prickly Hakea	23
Halymeniaceae	Halymeniaceae		23
Dilleniaceae	Hibbertia commutata		23
Asteraceae	Sonchus oleraceus	Common Sow-thistle	23
Rhamnaceae	Spyridium globulosum	Basket Bush	23
Celastraceae	Tripterococcus brunonis	Winged Stackhousia	23
Asteraceae	Ursinia anthemoides	Ursinia	23
Asteraceae	Asteridea pulverulenta	Common Bristle Daisy	22
Ericaceae	Astroloma ciliatum	Candle Cranberry	22
Rhodomelaceae	Brongniartella australis		22
Orchidaceae	Caladenia longicauda	White Spider Orchid	22
Myrtaceae	Calytrix flavescens	Summer Starflower	22
Centrolepidaceae	Centrolepis drummondiana	Drummond's Centrolepis	22
Orchidaceae	Cyanicula sericea	Silky Blue Orchid	22
Proteaceae	Hakea lissocarpha	Honey Bush	22
Proteaceae	Hakea varia	Variable-leaved Hakea	22
Asparagaceae	Lomandra preissii	Preiss' Mat Rush	22
Poaceae	Microlaena stipoides	Weeping Grass	22
Apiaceae	Platysace compressa	Tapeworm Plant	22
Elaeocarpaceae	Tetratheca hirsuta	Black-eyed Susan	22
Asparagaceae	Acanthocarpus preissii		21
Haemodoraceae	Anigozanthos manglesii subsp. manglesii	Mangles' Kangaroo Paw	21
Hemerocallidaceae	Caesia micrantha	Pale Grass Lily	21
Cyperaceae	Cyathochaeta avenacea		21
Orchidaceae	Disa bracteata	South African Orchid	21
Hemerocallidaceae	Johnsonia acaulis		21
Asteraceae	Olearia axillaris	Coast Daisy-bush	21
Asparagaceae	Thysanotus manglesianus	Fringed Lily	21
Asparagaceae	Thysanotus multiflorus	Many-flowered Fringe	21
Udoteaceae	Udoteaceae		21
Proteaceae	Adenanthos barbiger	Hairy Glandflower	20
Poaceae	Bromus diandrus	Great Brome	20
Centrolepidaceae	Centrolepis aristata	Pointed Centrolepis	20
Lamiaceae	Genus		20
Rubiaceae	Opercularia apiciflora		20
Orchidaceae	Pterostylis angusta	Narrow-hooded Shell Orchid	20
Stylidiaceae	Stylidium junceum	Reed Triggerplant	20
Poaceae	Tetrarrhena laevis	Forest Ricegrass	20
Apiaceae	Xanthosia ciliata		20
Droseraceae	Drosera stolonifera	Leafy Sundew	19
Hemerocallidaceae	Johnsonia lupulina	Hooded Lily	19
Ericaceae	Leucopogon parviflorus	Coast Beard-heath	19
Stylidiaceae	Levenhookia stipitata	Common Stylewort	19
	Plantae		19
Orchidaceae	Praecoxanthus aphyllus	Leafless Orchid	19

Poaceae	Austrostipa flavescens	Coast Spear-grass	18
Orchidaceae	Diuris	Donkey Orchids	18
Myrtaceae	Eucalyptus marginata	Jarrah	18
Apiaceae	Homalosciadium homalocarpum		18
Ericaceae	Leucopogon capitellatus		18
Campanulaceae	Lobelia tenuior	Slender Lobelia	18
Asparagaceae	Lomandra purpurea	Purple Mat Rush	18
Cyperaceae	Mesomelaena tetragona	Semaphore Sedge	18
Loganiaceae	Orianthera serpyllifolia subsp. angustifolia		18
Caryophyllaceae	Petrorhagia dubia	Velvet Pink	18
Stylidiaceae	Stylidium amoenum	Lovely Triggerplant	18
Stylidiaceae	Stylidium	Trigger-plants	18
Asparagaceae	Thysanotus patersonii	Twining Fringe-lily	18
Hemerocallidaceae	Tricoryne elatior	Yellow Rush Lily	18
Hemerocallidaceae	Agrostocrinum hirsutum	Grass Lily	17
Casuarinaceae	Allocasuarina humilis	Dwarf Sheoak	17
Centrolepidaceae	Aphelia cyperoides		17
Poaceae	Austrostipa semibarbata	Fibrous Spear-grass	17
Orchidaceae	Caladenia chapmanii	Chapman's Spider Orchid	17
Droseraceae	Drosera marchantii	Bridal Rainbow	17
Orchidaceae	Elythranthera emarginata	Pink Enamel Orchid	17
Fabaceae	Gompholobium capitatum	Yellow Pea	17
Fabaceae	Gompholobium preissii		17
Fabaceae	Hovea trisperma var. grandiflora		17
Fabaceae	Hovea trisperma var. trisperma	Common Hovea	17
Violaceae	Hybanthus calycinus	Wild Violet	17
Myrtaceae	Kunzea glabrescens	Spearwood	17
Cyperaceae	Lepidosperma longitudinale	Pithy Sword-sedge	17
Ericaceae	Lysinema ciliatum	Curry Flower	17
Iridaceae	Moraea flaccida	One-leaf Cape Tulip	17
Orobanchaceae	Orobanche minor	Lesser Broomrape	17
Myrtaceae	Pericalymma ellipticum	Swamp Teatree	17
Loganiaceae	Phyllangium paradoxum	Wiry Mitrewort	17
Thymelaeaceae	Pimelea rosea subsp. rosea	Rose Banjine	17
Orchidaceae	Pterostylis pyramidalis	Tall Snail Orchid	17
Fabaceae	Pultenaea skinneri	Skinner's Pea	17
Celastraceae	Stackhousia monogyna	Creamy Candles	17
Stylidiaceae	Stylidium calcaratum	Spurred Trigger-plant	17
Orchidaceae	Thelymitra macrophylla	Scented Sun Orchid	17
Asparagaceae	Thysanotus sparteus	Leafless Fringed Lily	17
Ericaceae	Andersonia caerulea	Foxtails	16
Restionaceae	Desmocladus flexuosus		16
Myrtaceae	Eucalyptus	Studley Park Gum	16
Dilleniaceae	Hibbertia huegelii		16
Euphorbiaceae	Monotaxis occidentalis		16
Stylidiaceae	Stylidium repens	Matted Triggerplant	16
Ericaceae	Styphelia tenuiflora	Common Pinheath	16
Asparagaceae	Thysanotus thyrsoideus		16
Fabaceae	Acacia lateriticola		15
Fabaceae	Acacia mooreana		15
Fabaceae	Acacia pulchella var. glaberrima	Western Prickly Moses	15
Proteaceae	Adenanthos obovatus	Basket Flower	15
Poaceae	Amphipogon amphipogonoides		15
Pittosporaceae	Billardiera variifolia		15
Fabaceae	Bossiaea ornata	Broad-leaved Brown Pea	15
Rhodymeniaceae	Botryocladia		15

Goodeniaceae	Goodenia eatoniana		15
Dilleniaceae	Hibbertia hypericoides subsp. hypericoides	Yellow Buttercups	15
Fabaceae	Hovea chorizemifolia	Holly-leaved Hovea	15
Dasypogonaceae	Kingia australis	Drumsticks	15
Myrtaceae	Melaleuca pauciflora		15
Iridaceae	Orthrosanthus laxus	Morning Iris	15
Orchidaceae	Pterostylis nana	Dwarf Greenhood	15
Santalaceae	Santalum acuminatum	Sweet Quandong	15
Goodeniaceae	Scaevola crassifolia	Cushion Fanflower	15
Proteaceae	Synaphea petiolaris	Synaphea	15
Elaeocarpaceae	Tetratheca hirsuta subsp. viminea		15
Campanulaceae	Wahlenbergia preissii		15
Fabaceae	Acacia nervosa	Rib Wattle	14
Fabaceae	Acacia varia var. varia		14
Fabaceae	Acacia	Wattle	14
Apocynaceae	Alyxia buxifolia	Sea Box	14
Poaceae	Amphipogon turbinatus		14
Colchicaceae	Burchardia multiflora	Lesser Burchardia	14
Myrtaceae	Calothamnus sanguineus	Silky-leaved Bloodflower	14
Polygalaceae	Comesperma virgatum	Milkwort	14
Halymeniaceae	Cryptonemia		14
Orchidaceae	Diuris longifolia	Common Donkey Orchid	14
Droseraceae	Drosera collina		14
Droseraceae	Drosera gigantea	Giant Sundew	14
Fabaceae	Gompholobium confertum		14
Proteaceae	Hakea stenocarpa		14
Araliaceae	Hydrocotyle bonariensis	Pennywort	14
Myrtaceae	Kunzea micrantha subsp. micrantha		14
Myrtaceae	Kunzea recurva		14
Asparagaceae	Laxmannia sessiliflora subsp. australis		14
Cyperaceae	Lepidosperma angustatum		14
Myrtaceae	Melaleuca cuticularis	Western Swamp-paperbark	14
Myrtaceae	Melaleuca lateritia	Robin Redbreast Bush	14
Oxalidaceae	Oxalis perennans	Native Sorrel	14
Proteaceae	Persoonia saccata	Snottygobble	14
Asteraceae	Siloxerus humifusus	Procumbent Siloxerus	14
Fabaceae	Sphaerolobium medium		14
Proteaceae	Synaphea odocoileops		14
Asparagaceae	Thysanotus arenarius	Sand-dune Fringed Lily	14
Fabaceae	Acacia cyclops	Western Coastal Wattle	13
Apiaceae	Actinotus glomeratus		13
Aponogetonaceae	Aponogeton hexatepalus	Stalked Water Ribbons	13
Acanthaceae	Avicennia marina subsp. marina		13
Haemodoraceae	Conostylis setigera subsp. setigera	Bristly Cottonhead	13
Orchidaceae	Cyrtostylis huegelii	Midge Orchid	13
Poaceae	Ehrharta calycina	Perennial Veldt-grass	13
Cyperaceae	Gahnia trifida	Cutting Grass	13
Restionaceae	Hypolaena pubescens		13
Fabaceae	Kennedia carinata		13
Poaceae	Lagurus ovatus	Hare's Tail Grass	13
	Magnoliopsida		13
Myrtaceae	Melaleuca teretifolia	Banbar	13
Cyperaceae	Mesomelaena graciliceps		13
Asteraceae	Olearia elaeophila		13
Iridaceae	Patersonia babianoides		13
Orchidaceae	Prasophyllum parvifolium	Autunm Leek Orchid	13

Stylidiaceae	Stylidium perplexum		13
Cyperaceae	Tetraria capillaris	Hair Sedge	13
Xanthorrhoeaceae	Xanthorrhoea acanthostachya		13
Fabaceae	Acacia huegelii	Huegel's Wattle	12
Asteraceae	Arctotheca calendula	Cape Weed	12
Dasypogonaceae	Calectasia narragara	Star Of Bethlehem	12
Aizoaceae	Carpobrotus virescens	Pigface	12
Lauraceae	Cassytha glabella	Slender Dodder-laurel	12
Champiaceae	Champia		12
Asteraceae	Cotula turbinata	Ferny Cotula	12
Asteraceae	Craspedia variabilis	Common Billy-buttons	12
Fabaceae	Daviesia divaricata subsp. divaricata		12
Fabaceae	Daviesia preissii		12
Cyperaceae	Ficinia nodosa	Knobby Club-rush	12
Fabaceae	Gompholobium marginatum		12
Proteaceae	Grevillea quercifolia	Oak-leaf Grevillea	12
Zosteraceae	Heterozostera	Garweed	12
Dilleniaceae	Hibbertia amplexicaulis		12
Juncaceae	Juncus kraussii	Sea Rush	12
Fabaceae	Labichea punctata	Lance-leaved Cassia	12
Cyperaceae	Lepidosperma gladiatum	Coast Sword-sedge	12
Restionaceae	Lepyrodia macra	Large Scale Rush	12
Juncaceae	Luzula meridionalis	Common Wood-rush	12
Primulaceae	Lysimachia arvensis	Pimpernel	12
Pittosporaceae	Marianthus tenuis		12
Myrtaceae	Melaleuca preissiana	Moonah	12
Iridaceae	Patersonia juncea	Rush Leaved Patersonia	12
Orchidaceae	Prasophyllum fimbria	Fringed Leek Orchid	12
Cyperaceae	Schoenus curvifolius		12
Stylidiaceae	Stylidium utricularioides	Pink Fan Triggerplant	12
Asphodelaceae	Trachyandra divaricata	Dune Onion Weed	12
Lentibulariaceae	Utricularia multifida	Pink Petticoats	12
Cymodoceaceae	Amphibolis griffithii	Griffith's Sea Nymph	11
Proteaceae	Banksia bipinnatifida subsp. multifida		11
Orchidaceae	Caladenia attingens subsp. attingens	Forest Mantis Orchid	11
Dasypogonaceae	Dasypogon hookeri	Pineapple Bush	11
Droseraceae	Drosera paleacea	Dwarf Sundew	11
Poaceae	Ehrharta longiflora	Annual Veldt-grass	11
Rhodymeniaceae	Gloiosaccion brownii		11
Campanulaceae	Isotoma hypocrateriformis	Woodbridge Poison	11
Rhodomelaceae	Laurencia elata		11
Ericaceae	Leucopogon glabellus		11
Ericaceae	Lysinema pentapetalum	Curry Flower	11
Orchidaceae	Microtis media subsp. media	Common Mignonette Orchid	11
Iridaceae	Moraea lewisiae	Golden Iris	11
Urticaceae	Parietaria debilis	Shade Pellitory	11
Asteraceae	Podolepis gracilis	Slender Podolepis	11
Asteraceae	Rhodanthe citrina	Pale Immortelle	11
Apiaceae	Schoenolaena juncea		11
Malvaceae	Thomasia grandiflora	Large-flowered Thomasia	11
Asparagaceae	Thysanotus	Fringed Lily	11
Haemodoraceae	Tribonanthes brachypetala	Nodding Tiurndin	11
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. semibarbata		11
Fabaceae	Acacia incurva		10
Fabaceae	Acacia pulchella var. pulchella	Prickly Moses	10
Fabaceae	Acacia semitrullata		10

Poaceae	Anthoxanthum odoratum	Sweet Vernal-grass	10
Myrtaceae	Babingtonia camphorosmae		10
Orobanchaceae	Bellardia viscosa	Yellow Bartsia	10
Rutaceae	Boronia fastigiata	Bushy Boronia	10
Fabaceae	Bossiaea angustifolia		10
Colchicaceae	Burchardia umbellata	Milkmaids	10
Orchidaceae	Caladenia georgei	Tuart Spider Orchid	10
Fabaceae	Chorizema cordatum	Flame Pea	10
Haemodoraceae	Conostylis laxiflora		10
Crassulaceae	Crassula colorata var. colorata	Dense Crassula	10
Orchidaceae	Cyanicula gemmata	Blue China Orchid	10
Poaceae	Dichelachne crinita	Long-hair Plume-grass	10
Droseraceae	Drosera glanduligera	Scarlet Sundew	10
Frankeniaceae	Frankenia pauciflora	Southern Sea-heath	10
Gelidiaceae	Gelidiaceae		10
Fabaceae	Gompholobium shuttleworthii		10
Haloragaceae	Gonocarpus paniculatus		10
Proteaceae	Grevillea pilulifera	Woolly-flowered Grevillea	10
Proteaceae	Grevillea pulchella	Beautiful Grevillea	10
Haemodoraceae	Haemodorum laxum	Bloodroot	10
Cyperaceae	Lepidosperma	Swordsedges	10
Restionaceae	Leptocarpus decipiens		10
Restionaceae	Leptocarpus roycei		10
Ericaceae	Leucopogon pulchellus	Beard Heath	10
Asparagaceae	Lomandra sonderi		10
Asparagaceae	Lomandra	Mat Rushes	10
Fabaceae	Lotus angustissimus	Slender Bird's-foot Trefoil	10
Orchidaceae	Lyperanthus serratus	Rattle Beaks	10
Poaceae	Neurachne alopecuroidea	Fox-tail Mulga-grass	10
Olacaceae	Olax benthamiana		10
Oxalidaceae	Oxalis glabra	Finger-leaf Wood-sorrel	10
Thymelaeaceae	Pimelea lanata		10
Asteraceae	Quinetia urvillei	Quinetia	10
Iridaceae	Romulea rosea	Onion Grass	10
Chenopodiaceae	Salicornia quinqueflora	Beaded Glasswort	10
Primulaceae	Samolus repens	Creeping Brookweed	10
Cyperaceae	Schoenus efoliatus		10
Cyperaceae	Schoenus grandiflorus	Large Flowered Bog-rush	10
Cyperaceae	Schoenus tenellus		10
Proteaceae	Synaphea hians		10
Fabaceae	Templetonia retusa	Cockies Tongue	10
Asteraceae	Trichocline spathulata	Native Gerbera	10
Fabaceae	Trifolium campestre var. campestre	Hop Clover	10
Fabaceae	Vicia sativa	Common Vetch	10
Casuarinaceae	Allocasuarina fraseriana	Western Sheoak	9
Poaceae	Avena barbata	Bearded Oats	9
Orchidaceae	Caladenia reptans subsp. reptans	Little Pink Fairies	9
Commelinaceae	Cartonema philydroides		9
Rhodomelaceae	Chondria		9
Haemodoraceae	Conostylis serrulata		9
Goodeniaceae	Dampiera		9
Fabaceae	Daviesia angulata		9
Delesseriaceae	Delesseriaceae		9
Brassicaceae	Diplotaxis tenuifolia	Sand Rocket	9
Orchidaceae	Diuris jonesii	Dunsborough Donkey Orchid	9
Droseraceae	Drosera menziesii	Pink Rainbow	9

Droseraceae	Drosera porrecta	Leafy Sundew	9
Euphorbiaceae	Euphorbia paralias	Sea Spurge	9
Fabaceae	Gastrolobium praemorsum		9
Fabaceae	Gastrolobium whicherense		9
Geraniaceae	Geranium retrorsum	Grassland Crane's-bill	9
Dilleniaceae	Hibbertia acerosa	Needle Leaved Guinea Flower	9
Fabaceae	Isotropis cuneifolia subsp. cuneifolia	Granny Bonnets	9
Juncaceae	Juncus bufonius	Toad Rush	9
Orchidaceae	Leptoceras menziesii	Hare Orchid	9
Ericaceae	Leucopogon		9
Fabaceae	Melilotus indicus	Sweet Melilot	9
Asteraceae	Millotia tenuifolia	Soft Millotia	9
Haloragaceae	Myriophyllum crispatum	Upright Milfoil	9
Iridaceae	Orthrosanthus laxus var. laxus	Morning Iris	9
Thymelaeaceae	Pimelea imbricata var. piligera		9
Thymelaeaceae	Pimelea preissii		9
Asteraceae	Pogonolepis stricta		9
Rhodomelaceae	Polysiphonia		9
Rosaceae	Pyrus communis	Pear	9
Chenopodiaceae	Rhagodia baccata subsp. baccata	Berry Saltbush	9
Cyperaceae	Schoenus bifidus		9
Selaginellaceae	Selaginella gracillima	Tiny Clubmoss	9
Poaceae	Spinifex longifolius	Spinifex	9
Stylidiaceae	Stylidium megacarpum		9
Stylidiaceae	Stylidium neurophyllum	Fan-leaved Triggerplant	9
Chenopodiaceae	Suaeda australis	Austral Seablite	9
Proteaceae	Synaphea gracillima		9
Orchidaceae	Thelymitra benthamiana	Leopard Sun-orchid	9
Hemerocallidaceae	Tricoryne tenella	Tufted Yellow Rush-lily	9
Fabaceae	Viminaria juncea	Native Broom	9
Colchicaceae	Wurmbea dioica subsp. alba		9
Myrtaceae	Agonis flexuosa var. flexuosa	Willow Myrtle	8
Poaceae	Amphipogon laguroides		8
Corallinaceae	Amphiroa		8
Fabaceae	Aotus gracillima		8
Poaceae	Austrostipa campylachne		8
Poaceae	Avena fatua	Wild Oats	8
Orchidaceae	Caladenia discoidea	Dancing Spider Orchid	8
Orchidaceae	Caladenia reptans	Little Pink Fairies	8
Myrtaceae	Calothamnus lateralis		8
Lauraceae	Cassytha	Dodder-laurel	8
Caryophyllaceae	Cerastium glomeratum	Common Mouse-ear Chickweed	8
Restionaceae	Chaetanthus aristatus	Bearded Twinerush	8
Codiaceae	Codium		8
Asteraceae	Craspedia sp. Yalgorup National Park (G.J.Keighery 14449)		8
Hemerocallidaceae	Dianella revoluta var. divaricata	Broad-leaf Flax-lily	8
Droseraceae	Drosera macrantha	Bridal Rainbow	8
Droseraceae	Drosera micrantha		8
Droseraceae	Drosera rosulata		8
Myrtaceae	Eremaea pauciflora var. pauciflora		8
Santalaceae	Exocarpos sparteus	Broombush	8
Gelidiaceae	Gelidium		8
Geraniaceae	Geranium molle	Soft Geranium	8
Gigartinaceae	Gigartina		8
Proteaceae	Grevillea trifida		8
Dilleniaceae	Hibbertia glomerata		8

Dilleniaceae	Hibbertia	Guinea Flowers	8
Violaceae	Hybanthus floribundus	Shrub Spade Flower	8
Araliaceae	Hydrocotyle alata		8
Araliaceae	Hydrocotyle diantha	Kangaroo Island Pennywort	8
Araliaceae	Hydrocotyle intertexta	Buttercup Pennywort	8
Fabaceae	Isotropis cuneifolia	Granny Bonnets	8
Bignoniaceae	Jacaranda mimosifolia	Jacaranda	8
Fabaceae	Jacksonia		8
Restionaceae	Lepyrodia glauca		8
Restionaceae	Lepyrodia muirii		8
Ericaceae	Leucopogon racemulosus		8
Cyperaceae	Machaerina juncea	Bare Twig-rush	8
Myrtaceae	Melaleuca lanceolata	Dryland Tea-tree	8
Geraniaceae	Pelargonium capitatum	Rose-scented Pelargonium	8
Apiaceae	Pentapeltis peltigera		8
Peyssonneliaceae	Peyssonnelia capensis		8
Haemodoraceae	Phlebocarya filifolia		8
Asteraceae	Pithocarpa cordata	Tangle Daisy	8
Plantaginaceae	Plantago lanceolata	Ribwort	8
Apiaceae	Platysace filiformis		8
Poaceae	Poa poiformis	Coast Tussock-grass	8
Poaceae	Polypogon tenellus		8
Orchidaceae	Prasophyllum plumiforme	Little Leek Orchid	8
Orchidaceae	Prasophyllum	Leek Orchids	8
Orchidaceae	Pterostylis sanguinea	Blood Greenhood	8
Chenopodiaceae	Rhagodia baccata	Berry Saltbush	8
Solanaceae	Solanum nigrum	Black Nightshade	8
Iridaceae	Sparaxis bulbifera	Sparaxis	8
Ericaceae	Sphenotoma capitata		8
Stylidiaceae	Stylidium ciliatum	Golden Triggerplant	8
Stylidiaceae	Stylidium thesioides	Delicate Triggerplant	8
Orchidaceae	Thelymitra flexuosa	Twisted Sun-orchid	8
Orchidaceae	Thelymitra pauciflora	Slender Sun Orchid	8
Poaceae	Vulpia myuros	Fescue	8
Asteraceae	Waitzia suaveolens	Fragrant Waitzia	8
Iridaceae	Watsonia meriana var. meriana	Bulbil Watsonia	8
Iridaceae	Watsonia versfeldii	Pink Watsonia	8
Convolvulaceae	Wilsonia humilis	Silky Wilsonia	8
Fabaceae	Acacia flagelliformis		7
Fabaceae	Acacia lasiocarpa		7
Fabaceae	Acacia urophylla	Pointed Leaved Acacia	7
Ericaceae	Andersonia heterophylla		7
Asteraceae	Arctotheca populifolia	Beach Daisy	7
Orchidaceae	Caladenia macrostylis	Leaping Spider Orchid	7
Orchidaceae	Caladenia marginata	White Fairy Orchid	7
Portulacaceae	Calandrinia liniflora	Parakeelya	7
Cupressaceae	Callitris preissii	White Pine	7
Leucobryaceae	Campylopus introflexus	Swan-neck Moss	7
Casuarinaceae	Casuarina obesa	Swamp Sheoak	7
Caprifoliaceae	Centranthus macrosiphon	Pretty Betsy	7
Myrtaceae	Chamelaucium uncinatum	Geraldton Wax	7
Polygalaceae	Comesperma volubile	Love Creeper	7
Haemodoraceae	Conostylis aculeata subsp. aculeata		7
Haemodoraceae	Conostylis setigera	Bristly Cottonhead	7
Fabaceae	Daviesia decurrens	Thorny Bitter-pea	7
Orchidaceae	Diuris filifolia	Cat's-face Orchid	7

Droseraceae	Drosera macrantha subsp. macrantha		7
Myrtaceae	Eucalyptus rudis	Flooded Gum	7
Papaveraceae	Fumaria capreolata	White-flowered Fumitory	7
Fabaceae	Gastrolobium		7
Haemodoraceae	Haemodorum spicatum	Bohn	7
Lamiaceae	Hemigenia humilis		7
Asteraceae	Hyalosperma cotula		7
Cyperaceae	Isolepis cernua	Nodding Club Rush	7
Cyperaceae	Isolepis oldfieldiana		7
Juncaceae	Juncus holoschoenus	Joint-leaf Rush	7
Malvaceae	Lasiopetalum membranaceum		7
Rhodomelaceae	Laurencia brongniartii		7
Cyperaceae	Lepidosperma pubisquameum		7
Santalaceae	Leptomeria cunninghamii		7
Ericaceae	Leucopogon sp. Margaret River (J.Scott 207)		7
Lindsaeaceae	Lindsaea linearis	Screw Fern	7
Asparagaceae	Lomandra spartea		7
Anarthriaceae	Lyginia imberbis		7
Myrtaceae	Melaleuca parviceps		7
Myrtaceae	Myrtaceae	Myrtle Family	7
Loganiaceae	Orianthera serpyllifolia		7
Fabaceae	Ornithopus compressus	Neat Bird's-foot	7
Phacelocarpaceae	Phacelocarpus sessilis		7
Philydraceae	Philydrella pygmaea subsp. pygmaea		7
Thymelaeaceae	Pimelea rosea	Rose Banjine	7
Poaceae	Poa drummondiana	Knotted Poa	7
Phyllanthaceae	Poranthera microphylla	Small Poranthera	7
Posidoniaceae	Posidonia sinuosa	Narrow-leaf Tapeweed	7
Orchidaceae	Prasophyllum giganteum	Bronze Leek Orchid	7
Cyperaceae	Schoenus sculptus	Gimlet Bog-rush	7
Boodleaceae	Struvea		7
Proteaceae	Synaphea floribunda		7
Proteaceae	Synaphea petiolaris subsp. petiolaris		7
Proteaceae	Synaphea polypodioides		7
Proteaceae	Synaphea spinulosa subsp. spinulosa		7
Proteaceae	Synaphea		7
Myrtaceae	Taxandria linearifolia		7
Orchidaceae	Thelymitra	Sun Orchids	7
Asparagaceae	Thysanotus tenellus	Grassy Fringe-lily	7
Hydatellaceae	Trithuria submersa	Trithuria	7
Apiaceae	Xanthosia candida		7
Fabaceae	Acacia tetragonocarpa		6
Euphorbiaceae	Amperea ericoides		6
Haemodoraceae	Anigozanthos humilis subsp. humilis	Catspaw	6
Haemodoraceae	Anigozanthos	Kangaroo Paw	6
Myrtaceae	Astartea		6
Proteaceae	Banksia sessilis		6
Asteraceae	Brachyscome iberidifolia	Brachyscome	6
Brassicaceae	Cakile maritima	Sea Rocket	6
Plantaginaceae	Callitriche stagnalis	Common Water-starwort	6
Cyperaceae	Carex thecata		6
Lauraceae	Cassytha racemosa f. racemosa		6
Casuarinaceae	Casuarinaceae	Sheoak	6
Haemodoraceae	Conostylis		6
Gracilariaceae	Curdiea		6
Poaceae	Deyeuxia quadriseta	Slender Reed Bent-grass	6

Fabaceae	Dillwynia uncinata	Silky Parrot-pea	6
Orchidaceae	Diuris corymbosa	Common Donkey Orchid	6
Orchidaceae	Drakaea livida	Warty Hammer Orchid	6
Chenopodiaceae	Dysphania ambrosioides	Mexican Tea	6
Cyperaceae	Eleocharis keigheryi	Keighery's Eleocharis	6
Apiaceae	Eryngium pinnatifidum	Blue Devils	6
Iridaceae	Freesia	Freesia	6
Rubiaceae	Galium murale	Small Bedstraw	6
	Gigartinales		6
Goodeniaceae	Goodenia micrantha		6
Lamiaceae	Hemigenia incana	Silky Hemigenia	6
Cyperaceae	Lepidosperma scabrum	Scabrid Sword-sedge	6
Ericaceae	Leucopogon oxycedrus		6
Campanulaceae	Lobelia anceps	Angled Lobelia	6
Asparagaceae	Lomandra micrantha	Small-flower Mat-rush	6
Fabaceae	Lotus subbiflorus	Hairy Bird's-foot Trefoil	6
Cyperaceae	Machaerina arthrophylla	Baumea	6
Pittosporaceae	Marianthus candidus	White Marianthus	6
Myrtaceae	Melaleuca trichophylla		6
Myrtaceae	Melaleuca viminea subsp. viminea	Weeping Honey-myrtle	6
Onagraceae	Oenothera drummondii	Beach Evening Primrose	6
Rubiaceae	Opercularia hispidula	Hispid Stinkweed	6
Menyanthaceae	Ornduffia parnassifolia		6
Geraniaceae	Pelargonium littorale	Native Pelargonium	6
Myrtaceae	Pericalymma ellipticum var. floridum		6
Thymelaeaceae	Pimelea	Rice Flowers	6
Orchidaceae	Pterostylis barbata	Bird Orchid	6
Orchidaceae	Pterostylis crispula	Slender Snail Orchid	6
Orchidaceae	Pterostylis sp. crinkled leaf (G.J.Keighery 13426)		6
Racopilaceae	Racopilum cuspidigerum var. convolutaceum	Common Carpet-moss	6
Poaceae	Rytidosperma pilosum	Large Velvet Wallaby-grass	6
Cyperaceae	Schoenoplectus pungens	Spiky Club-rush	6
Cyperaceae	Schoenus odontocarpus		6
Cyperaceae	Schoenus plumosus		6
Cyperaceae	Schoenus rigens		6
Asteraceae	Senecio pinnatifolius	Variable Groundsel	6
Caryophyllaceae	Silene gallica	French Catchfly	6
Poaceae	Sporobolus virginicus	Marine Couch	6
Celastraceae	Stackhousia	Candles	6
Stylidiaceae	Stylidium carnosum	Fleshy-leaved Triggerplant	6
Stylidiaceae	Stylidium spathulatum	Creamy Triggerplant	6
Aizoaceae	Tetragonia decumbens	Sea Spinach	6
Elaeocarpaceae	Tetratheca hispidissima		6
Haemodoraceae	Tribonanthes australis	Southern Tiurndin	6
Hemerocallidaceae	Tricoryne humilis		6
Fabaceae	Trifolium subterraneum	Subterranean Clover	6
Juncaginaceae	Triglochin mucronata	Prickly Arrowgrass	6
Hydatellaceae	Trithuria bibracteata		6
Goodeniaceae	Velleia trinervis		6
Myrtaceae	Verticordia attenuata		6
Campanulaceae	Wahlenbergia capensis	Cape Bluebell	6
Araceae	Zantedeschia aethiopica	White Arum Lily	6
Fabaceae	Acacia obovata		5
Fabaceae	Acacia rostellifera	Summer-scented Wattle	5
Fabaceae	Acacia teretifolia		5
Amaryllidaceae	Amaryllis belladonna	Belladonna Lily	5

Poaceae	Amphibromus nervosus	Swamp Wallaby Grass	5
Asteraceae	Angianthus preissianus	Salt Angianthus	5
Solanaceae	Anthocercis littorea	Yellow Tailflower	5
Asparagaceae	Asparagus asparagoides	Western Cape Bridal Creeper	5
Asteraceae	Asteraceae	Daisy	5
Iridaceae	Babiana angustifolia	Baboon Flower	5
Proteaceae	Banksia nivea		5
Pottiaceae	Barbula calycina	Common Beard-moss	5
Orobanchaceae	Bellardia trixago	Bellardia	5
Rutaceae	Boronia defoliata		5
Boryaceae	Borya scirpoidea		5
Poaceae	Bromus arenarius	Sand Brome	5
Hemerocallidaceae	Caesia occidentalis	Pale Grass Lily	5
Orchidaceae	Caladenia arrecta	Reaching Spider Orchid	5
Orchidaceae	Caladenia longicauda subsp. longicauda	White Spider Orchid	5
Orchidaceae	Caleana nigrita		5
Myrtaceae	Calytrix angulata	Yellow Starflower	5
Aizoaceae	Carpobrotus	Pigface	5
Casuarinaceae	Casuarina glauca	Swamp Oak	5
Centrolepidaceae	Centrolepis polygyna	Wiry Centrolepis	5
Asteraceae	Chondrilla juncea	Skeleton Weed	5
Cyperaceae	Chorizandra enodis	Black Bristle-sedge	5
Gentianaceae	Cicendia filiformis	Slender Cicendia	5
Poaceae	Cortaderia selloana subsp. selloana	Pampas Grass	5
Asteraceae	Cotula coronopifolia	Water Buttons	5
Orchidaceae	Cryptostylis ovata	Tongue Orchid	5
Poaceae	Cynodon dactylon	Couch	5
Cyperaceae	Cyperus eragrostis	Drain Flat-sedge	5
Cyperaceae	Cyperus tenuiflorus	Scaly Sedge	5
Goodeniaceae	Dampiera alata	Winged-stemmed Dampiera	5
Goodeniaceae	Dampiera pedunculata		5
Fabaceae	Dipogon lignosus	Common Dolichos Pea	5
Droseraceae	Drosera indumenta		5
Droseraceae	Drosera	Sundews	5
Scrophulariaceae	Eremophila glabra subsp. albicans	Tar Bush	5
Ericaceae	Ericaceae	Austral Heaths	5
Geraniaceae	Erodium botrys	Big Herons-bill	5
Myrtaceae	Eucalyptus rudis subsp. rudis	Flooded Gum	5
Cyperaceae	Evandra pauciflora		5
Proteaceae	Grevillea bipinnatifida	Fuchsia Grevillea	5
Haemodoraceae	Haemodorum simplex		5
Cyperaceae	Isolepis cyperoides		5
Cyperaceae	Isolepis levynsiana	Tiny Flat-sedge	5
Myrtaceae	Kunzea baxteri	Crimson Kunzea	5
Goodeniaceae	Lechenaultia expansa		5
Goodeniaceae	Lechenaultia floribunda	Free-flowering Leschenaultia	5
Asteraceae	Leucophyta brownii	Coast Cushion Bush	5
Campanulaceae	Lobelia		5
Asparagaceae	Lomandra integra		5
Asparagaceae	Lomandra micrantha subsp. micrantha	Small-flower Mat-rush	5
Primulaceae	Lysimachia loeflingii		5
Ericaceae	Lysinema		5
Orchidaceae	Microtis	Onion Orchids	5
Euphorbiaceae	Monotaxis grandiflora	Diamond Of The Desert	5
Onagraceae	Oenothera mollissima		5
Rubiaceae	Opercularia vaginata	Dog Weed	5

Menyanthaceae	Ornduffia submersa		5
Iridaceae	Patersonia umbrosa	Yellow Flags	5
Myrtaceae	Pericalymma ellipticum var. ellipticum		5
Proteaceae	Petrophile striata		5
Poaceae	Phalaris angusta		5
Thymelaeaceae	Pimelea sulphurea	Yellow Banjine	5
Podocarpaceae	Podocarpus drouynianus	Wild Plum	5
Proteaceae	Proteaceae	Banksia	5
Pterocladiaceae	Pterocladia lucida		5
Fabaceae	Pultenaea radiata		5
Iridaceae	Romulea rosea var. australis	Guilford Grass	5
Goodeniaceae	Scaevola phlebopetala	Velvet Fanflower	5
Goodeniaceae	Scaevola striata	Royal Robe	5
Asteraceae	Senecio depressicola	Senecio	5
Asteraceae	Senecio multicaulis subsp. multicaulis		5
Fabaceae	Sphaerolobium linophyllum		5
Picrodendraceae	Stachystemon virgatus		5
Stylidiaceae	Stylidium amoenum var. amoenum		5
Stylidiaceae	Stylidium paludicola	Swamp Reed Triggerplant	5
Proteaceae	Synaphea petiolaris subsp. simplex		5
Proteaceae	Synaphea whicherensis		5
Orchidaceae	Thelymitra graminea	Shy Sun Orchid	5
	Tracheophyta		5
Haemodoraceae	Tribonanthes longipetala	Branching Tiurndin	5
Cyperaceae	Tricostularia neesii var. neesii		5
Fabaceae	Trifolium campestre	Hop Clover	5
Fabaceae	Trifolium cernuum	Drooping-flower Clover	5
Fabaceae	Trifolium dubium	Suckling Clover	5
Asteraceae	Vellereophyton dealbatum	White Cudweed	5
Plantaginaceae	Veronica arvensis	Wall Speedwell	5
Poaceae	Vulpia bromoides	Squirrel-tail Fescue	5
Asteraceae	Waitzia suaveolens var. suaveolens		5
Fabaceae	Acacia podalyriifolia	Mount Morgan Wattle	4
Fabaceae	Acacia vestita	Hairy Wattle	4
Hemerocallidaceae	Agrostocrinum		4
Aizoaceae	Aizoon pubescens	Galenia	4
Ericaceae	Andersonia involucrata		4
Goodeniaceae	Anthotium junciforme	Rush-like Anthotium	4
Apiaceae	Apium prostratum var. prostratum	Native Celery	4
Myrtaceae	Astartea affinis	West-coast Astartea	4
Chenopodiaceae	Atriplex cinerea	Coast Saltbush	4
Proteaceae	Banksia armata var. armata		4
Proteaceae	Banksia	Banksia	4
Rutaceae	Boronia		4
Fabaceae	Bossiaea pulchella		4
Poaceae	Bromus catharticus	Prairie Grass	4
Orchidaceae	Caladenia attingens	Forest Mantis Orchid	4
Orchidaceae	Caladenia hirta subsp. hirta	Sugar Candy Orchid	4
Orchidaceae	Caladenia longicauda subsp. eminens	Stark White Spider Orchid	4
Orchidaceae	Caladenia nobilis	Noble Spider Orchid	4
Orchidaceae	Caladenia pectinata	King Spider Orchid	4
Orchidaceae	Caladenia vulgata	Spider Orchid	4
Poaceae	Calamagrostis arenaria	Marram Grass	4
Myrtaceae	Calothamnus quadrifidus	Common Net Bush	4
Euphorbiaceae	Calycopeplus oligandrus		4
Myrtaceae	Calytrix fraseri	Pink Summer Calytrix	4

Cyperaceae	Carex tereticaulis	Poong'ort	4
Casuarinaceae	Casuarina cunninghamiana	River She-oak	4
Cyperaceae	Caustis sp. Boyanup (G.S.McCutcheon 1706)		4
Centrolepidaceae	Centrolepis glabra	Smooth Centrolepis	4
Centrolepidaceae	Centrolepis mutica		4
Cladophoraceae	Chaetomorpha aerea	Green Algae	4
Ranunculaceae	Clematis pubescens	Common Clematis	4
Hemerocallidaceae	Corynotheca micrantha var. micrantha	Sand Lily	4
Asteraceae	Craspedia	Billy Buttons	4
Cystocloniaceae	Craspedocarpus		4
Juncaginaceae	Cycnogeton lineare		4
Cyperaceae	Cyperaceae	Button Rush	4
Myrtaceae	Darwinia citriodora	Lemon-scented Darwinia	4
Fabaceae	Daviesia decurrens subsp. decurrens		4
Fabaceae	Daviesia divaricata	Marno	4
Fabaceae	Daviesia hakeoides subsp. hakeoides		4
Fabaceae	Dillwynia sp. Capel (P.A.Jurjevich 1771)		4
Orchidaceae	Diuris cruenta	Kermerton [sic; Kemerton] Donkey Orchid	4
Orchidaceae	Diuris magnifica	Pansy Orchid	4
Orchidaceae	Diuris tinctoria	Sandplain Donkey Orchid	4
Sapindaceae	Dodonaea aptera	Coast Hopbush	4
Droseraceae	Drosera pulchella	Pretty Sundew	4
Chenopodiaceae	Dysphania pumilio	Small Crumbweed	4
Asteraceae	Erigeron sumatrensis	Tall Fleabane	4
Orchidaceae	Eriochilus scaber subsp. scaber	Pink Bunny Orchid	4
Myrtaceae	Eucalyptus rudis subsp. cratyantha	Large-flowered Flooded Gum	4
Santalaceae	Exocarpos odoratus	Scented Ballart	4
Iridaceae	Ferraria crispa	Black Flag	4
Fabaceae	Genista linifolia	Flax-leaf Broom	4
Fabaceae	Gompholobium	Wedge Peas	4
Goodeniaceae	Goodenia pulchella		4
Proteaceae	Grevillea diversifolia subsp. diversifolia		4
Proteaceae	Grevillea pulchella subsp. ascendens		4
Proteaceae	Grevillea vestita subsp. vestita		4
Haemodoraceae	Haemodorum sparsiflorum	Mardja	4
Proteaceae	Hakea prostrata	Harsh Hakea	4
Proteaceae	Hakea sulcata	Furrowed Hakea	4
Asteraceae	Hyalosperma pusillum		4
Araliaceae	Hydrocotyle callicarpa	Tiny Pennywort	4
Fabaceae	Jacksonia sternbergiana	Stinkwood	4
Juncaceae	Juncus capitatus	Dwarf Rush	4
Fabaceae	Kennedia coccinea subsp. coccinea		4
Myrtaceae	Kunzea micrantha		4
Poaceae	Lachnagrostis plebeia	Coarse Blowngrass	4
Malvaceae	Lagunaria patersonia	Sally Wood	4
Asparagaceae	Laxmannia sessiliflora	Nodding Lily	4
Acrobolbaceae	Lethocolea pansa	Common Pouchwort	4
Ericaceae	Leucopogon australis	Spike Beard-heath	4
Ericaceae	Leucopogon verticillatus	Tassel Flower	4
Menyanthaceae	Liparophyllum latifolium		4
Campanulaceae	Lobelia rhytidosperma	Wrinkle-seeded Lobelia	4
Asparagaceae	Lomandra brittanii		4
Asparagaceae	Lomandra nutans		4
Asparagaceae	Lomandra odora	Fragrant Mat Rush	4
Fabaceae	Lupinus cosentinii	Sandplain Lupin	4

Fabaceae	Medicago polymorpha	Spineless Burr Medic	4
Myrtaceae	Melaleuca armillaris	Giant Honey Myrtle	4
Myrtaceae	Melaleuca incana subsp. incana	Grey Honey-myrtle	4
Fabaceae	Melilotus siculus	Messinia	4
Lamiaceae	Mentha pulegium	Pennyroyal	4
Asteraceae	Millotia tenuifolia var. tenuifolia	Soft Millotia	4
Campanulaceae	Monopsis debilis	Pansy Lobelia	4
Orchidaceae	Orchidaceae	Orchids	4
Menyanthaceae	Ornduffia albiflora		4
Asparagaceae	Ornithogalum arabicum	Star Of Africa	4
Oxalidaceae	Oxalis pes-caprae	Soursob	4
Orobanchaceae	Parentucellia latifolia	Red Bartsia	4
Poaceae	Paspalum dilatatum	Paspalum	4
Iridaceae	Patersonia limbata		4
Polygonaceae	Persicaria prostrata	Creeping Knotweed	4
Proteaceae	Petrophile	Conesticks	4
Peyssonneliaceae	Peyssonnelia novae-hollandiae		4
Philydraceae	Philydrella pygmaea	Lesser Butterfly Flowers	4
Marsileaceae	Pilularia novae-hollandiae	Austral Pillwort	4
Polyphysaceae	Polyphysaceae		4
Posidoniaceae	Posidonia angustifolia	Narrow-leaf Tapeweed	4
Pottiaceae	Pottiaceae		4
Orchidaceae	Prasophyllum hians	Yawning Leek Orchid	4
Dennstaedtiaceae	Pteridium esculentum	Austral Bracken	4
Orchidaceae	Pterostylis robusta	Large Striped Greenhood	4
Amaranthaceae	Ptilotus manglesii	Pom Poms	4
Racopilaceae	Racopilum cuspidigerum	Carpet Moss	4
Ranunculaceae	Ranunculus colonorum	Common Buttercup	4
Polygonaceae	Rumex crispus	Curled Dock	4
Chenopodiaceae	Salicornia	Samphires	4
Primulaceae	Samolus junceus		4
Cyperaceae	Schoenus benthamii		4
Cyperaceae	Schoenus		4
Asteraceae	Siloxerus multiflorus	Small Wrinklewort	4
Poaceae	Sorghum halepense	Johnson Grass	4
Fabaceae	Sphaerolobium scabriusculum		4
Fabaceae	Sphaerolobium vimineum	Leafless Globe-pea	4
Picrodendraceae	Stachystemon vermicularis		4
Caryophyllaceae	Stellaria media	Chickweed	4
Brassicaceae	Stenopetalum gracile		4
Stylidiaceae	Stylidium diversifolium	Touch-me-not	4
Proteaceae	Synaphea sp. Pinjarra Plain (A.S.George 17182)		4
Chenopodiaceae	Tecticornia halocnemoides	Red Glasswort	4
Orchidaceae	Thelymitra antennifera	Lemon Sun-orchid	4
Asparagaceae	Thysanotus pseudojunceus		4
Fabaceae	Vicia sativa subsp. nigra	Narrow-leaved Vetch	4
Iridaceae	Watsonia knysnana		4
Iridaceae	Watsonia marginata	Bordered Watsonia	4
Iridaceae	Watsonia	Watsonia	4
Bangiaceae	'Porphyra'		3
Fabaceae	Acacia alata var. alata		3
Fabaceae	Acacia alata	Winged Wattle	3
Fabaceae	Acacia browniana	Brown's Wattle	3
Fabaceae	Acacia iteaphylla	Flinders Range Wattle	3
Fabaceae	Acacia preissiana		3
Proteaceae	Adenanthos		3

Amaranthaceae	Amaranthus albus	Stiff Tumbleweed	3
Poaceae	Amphipogon laguroides subsp. laguroides		3
Haemodoraceae	Anigozanthos humilis	Common Catspaw	3
Haemodoraceae	Anigozanthos viridis	Green Kangaroo Paw	3
Myrtaceae	Astartea fascicularis	Recherche Astartea	3
Myrtaceae	Astartea scoparia	Common Astartea	3
Chenopodiaceae	Atriplex isatidea	Coastal Saltbush	3
Acanthaceae	Avicennia marina subsp. australasica	Grey Mangrove	3
Proteaceae	Banksia bipinnatifida		3
Cyperaceae	Bolboschoenus caldwellii	Salt Club-sedge	3
Rutaceae	Boronia crenulata	Aniseed Boronia	3
Rutaceae	Boronia denticulata	Toothed-leaved Boronia	3
Boryaceae	Borya sphaerocephala	Pincushions	3
Fabaceae	Bossiaea aquifolium subsp. aquifolium		3
Fabaceae	Bossiaea rufa		3
	Bryophyta		3
Orchidaceae	Caladenia hirta	Sugar Candy Orchid	3
Orchidaceae	Caladenia huegelii	Grand Spider Orchid	3
Orchidaceae	Caladenia lobata	Butterfly Orchid	3
Orchidaceae	Caladenia nana subsp. nana	Little Pink Fan Orchid	3
Orchidaceae	Caladenia nana	Pink Fan Orchid	3
Orchidaceae	Caladenia pendens subsp. pendens	Pendant Spider Orchid	3
Cannaceae	Canna x generalis	Canna	3
Cyperaceae	Carex divisa	Divided Sedge	3
Poaceae	Cenchrus clandestinus	Kikuyu	3
Gentianaceae	Centaurium erythraea	Common Centaury	3
Cladophoraceae	Chaetomorpha		3
Asparagaceae	Chamaexeros serra		3
Chenopodiaceae	Chenopodiaceae	Saltbush	3
Chenopodiaceae	Chenopodium album	Fat Hen	3
Lophocoleaceae	Chiloscyphus semiteres	Common Crestwort	3
Fabaceae	Chorizema rhombeum		3
Cladophoraceae	Cladophora valonioides		3
Haemodoraceae	Conostylis aculeata subsp. preissii		3
Haemodoraceae	Conostylis aurea		3
Caryophyllaceae	Corrigiola litoralis	Strapwort	3
Hemerocallidaceae	Corynotheca micrantha	Sand Lily	3
Crassulaceae	Crassula colorata	Dense Stonecrop	3
Orchidaceae	Cyrtostylis robusta	Large Gnat-orchid	3
Goodeniaceae	Dampiera trigona	Angled-stem Dampiera	3
Myrtaceae	Darwinia whicherensis	Abba Bell	3
Fabaceae	Daviesia rhombifolia		3
Hemerocallidaceae	Dianella revoluta	Blueberry Lily	3
Convolvulaceae	Dichondra repens	Kidney-weed	3
Scrophulariaceae	Dischisma arenarium	Sand Dichisma	3
Orchidaceae	Diuris maculata	Spotted Doubletail	3
Orchidaceae	Drakaea glyptodon	King-in-his-carriage	3
Droseraceae	Drosera platystigma	Black-eyed Sundew	3
Droseraceae	Drosera sp. Branched styles (S.C.Coffey 193)		3
Cyperaceae	Eleocharis acuta	Common Spike-sedge	3
Asteraceae	Erigeron bonariensis	Flaxleaf Fleabane	3
Myrtaceae	Eucalyptus camaldulensis	Red Gum	3
Fabaceae	Euchilopsis linearis	Swamp Pea	3
Fabaceae	Fabaceae		3
Proteaceae	Franklandia triaristata	Lanoline Bush	3
Fabaceae	Gastrolobium cuneatum	River Poison	3

Asteraceae	Gazania	Gazania	3
Geraniaceae	Geranium dissectum	Cut-leaf Geranium	3
Iridaceae	Gladiolus undulatus	Wild Gladiolus	3
Apocynaceae	Gomphocarpus fruticosus	Narrow-leaved Cotton Bush	3
Proteaceae	Grevillea bipinnatifida subsp. bipinnatifida		3
Proteaceae	Grevillea manglesioides subsp. manglesioides		3
Proteaceae	Grevillea		3
Proteaceae	Hakea ceratophylla	Horned Leaf Hakea	3
Proteaceae	Hakea	Needle Bushes	3
Boraginaceae	Heliotropium europaeum	Common Heliotrope	3
Lamiaceae	Hemiphora bartlingii		3
Dilleniaceae	Hibbertia aurea		3
Dilleniaceae	Hibbertia subvaginata		3
Violaceae	Hybanthus floribundus subsp. floribundus	Shrub Violet	3
Violaceae	Hybanthus		3
Asteraceae	Hypochaeris radicata	Cats-ear	3
Iridaceae	Ixia maculata	Yellow Ixia	3
Iridaceae	Ixia paniculata	Long-tube Ixia	3
Fabaceae	Jacksonia gracillima		3
Fabaceae	Jacksonia lehmannii		3
Corallinaceae	Jania verrucosa		3
Juncaceae	Juncus pallidus	Pale Rush	3
Myrtaceae	Kunzea rostrata		3
Poaceae	Lachnagrostis filiformis	Common Blown-grass	3
Proteaceae	Lambertia multiflora	Many-flowered Honeysuckle	3
Lamiaceae	Lavandula stoechas subsp. stoechas	Topped Lavender	3
Cyperaceae	Lepidosperma tenue		3
Restionaceae	Leptocarpus canus	Hoary Twine-rush	3
Restionaceae	Leptocarpus scariosus		3
Amaryllidaceae	Leucojum aestivum	Snowflake	3
Ericaceae	Leucopogon cordatus		3
Ericaceae	Leucopogon obovatus		3
Linaceae	Linum trigynum	French Flax	3
Campanulaceae	Lobelia gibbosa	Tall Lobelia	3
Brassicaceae	Lobularia maritima	Sweet Alyssum	3
Poaceae	Lolium multiflorum	Italian Ryegrass	3
Poaceae	Lolium perenne	Perennial Rye-grass	3
Poaceae	Lolium rigidum	Wimmera Ryegrass	3
Asparagaceae	Lomandra whicherensis		3
Fabaceae	Lupinus angustifolius	Narrow-leaf Lupin	3
Myrtaceae	Melaleuca systena	Coastal Honeymyrtle	3
Asteraceae	Millotia myosotidifolia	Broad-leaf Millotia	3
Caryophyllaceae	Moenchia erecta	Erect Chickweed	3
Portulacaceae	Montia australasica	White Purslane	3
Nymphaeaceae	Nymphaea	Water Lilies	3
Onagraceae	Oenothera	Clockweed	3
Fabaceae	Ornithopus sativus	Neat Bird's-foot	3
Hypoxidaceae	Pauridia glabella		3
Hypoxidaceae	Pauridia occidentalis var. quadriloba		3
Philydraceae	Philydrella drummondii	Greater Butterfly Flowers	3
Apodanthaceae	Pilostyles hamiltoniorum		3
Apodanthaceae	Pilostyles		3
Thymelaeaceae	Pimelea ciliata subsp. ciliata		3
Thymelaeaceae	Pimelea suaveolens subsp. suaveolens		3
Asteraceae	Pithocarpa pulchella var. melanostigma		3
Poaceae	Poaceae	Grasses	3

Posidoniaceae	Posidonia	Tapeweed	3
Orchidaceae	Pterostylis ectypha	Thick-sepaled Snail Orchid	3
Orchidaceae	Pterostylis erubescens	Red-sepaled Snail Orchid	3
Orchidaceae	Pterostylis sp. Bloated snail orchid (W.Jackson BJ486)		3
Orchidaceae	Pterostylis turfosa	Bearded Bird Orchid	3
Fabaceae	Retama raetam	White Weeping Broom	3
Chenopodiaceae	Rhagodia candolleana		3
Asteraceae	Rhodanthe pyrethrum		3
Euphorbiaceae	Ricinocarpos cyanescens		3
Iridaceae	Romulea rosea var. communis	Onion Grass	3
Poaceae	Rytidosperma setaceum	Small-flower Wallaby-grass	3
Santalaceae	Santalaceae	Sandlewood Family	3
Goodeniaceae	Scaevola anchusifolia	Silky Scaevola	3
Goodeniaceae	Scaevola	Fan-flowers	3
Cyperaceae	Schoenus brevisetis		3
Cyperaceae	Schoenus sublateralis		3
Cyperaceae	Schoenus variicellae		3
Myrtaceae	Scholtzia involucrata	Spiked Scholtzia	3
Asteraceae	Senecio	Groundsel	3
Rubiaceae	Sherardia arvensis	Field Madder	3
Caryophyllaceae	Spergula arvensis	Corn Spurrey	3
Ericaceae	Sphenotoma gracilis	Swamp Paper Heath	3
Poaceae	Spinifex hirsutus	Rolling Spinifex	3
Lamiaceae	Stachys arvensis	Stagger Weed	3
Brassicaceae	Stenopetalum robustum		3
Stylidiaceae	Stylidium angustifolium subsp. glaucifolium		3
Stylidiaceae	Stylidium araeophyllum	Stilt Walker	3
Stylidiaceae	Stylidium divaricatum	Daddy-long-legs	3
Stylidiaceae	Stylidium inundatum	Hundreds And Thousands	3
Stylidiaceae	Stylidium petiolare	Horn Triggerplant	3
Stylidiaceae	Stylidium pulchellum	Thumbelina Triggerplant	3
Asteraceae	Symphyotrichum squamatum	Bushy Starwort	3
Proteaceae	Synaphea petiolaris subsp. triloba		3
Proteaceae	Synaphea sp. Fairbridge Farm (D.Papenfus 696)	Selena's Synaphea	3
Orchidaceae	Thelymitra vulgaris	Slender Sun Orchid	3
Asparagaceae	Thysanotus gracilis		3
Asparagaceae	Thysanotus pauciflorus		3
Fabaceae	Trifolium	Clover	3
Pottiaceae	Triquetrella		3
Iridaceae	Tritonia crocata	Orange Tritonia	3
Asteraceae	Ursinia anthemoides subsp. anthemoides	Ursinia	3
Myrtaceae	Verticordia densiflora var. cespitosa		3
Apocynaceae	Vinca major	Blue Periwinkle	3
Iridaceae	Watsonia meriana var. bulbillifera	Bulbil Watsonia	3
Iridaceae	Watsonia meriana	Bugle Lily	3
Fabaceae	Acacia browniana var. obscura		2
Fabaceae	Acacia longifolia subsp. longifolia	Sallow Wattle	2
Fabaceae	Acacia longifolia	Sallow Wattle	2
Fabaceae	Acacia myrtifolia	Myrtle Wattle	2
Fabaceae	Acacia paradoxa	Kangaroo Thorn	2
Fabaceae	Acacia pycnantha	Golden Wattle	2
Fabaceae	Acacia saligna subsp. Southern forest (B.R.Maslin & J.E.Reid BRM 9952)		2
Hemerocallidaceae	Agrostocrinum scabrum subsp. scabrum		2
Poaceae	Aira cupaniana	Quicksilver Grass	2
Casuarinaceae	Allocasuarina thuyoides	Horned Sheoak	2
Casuarinaceae	Allocasuarina		2

Potamogetonaceae	Althenia		2
Amaranthaceae	Amaranthaceae	Amaranth	2
Euphorbiaceae	Amperea simulans		2
Anarthriaceae	Anarthria scabra		2
Ericaceae	Andersonia lehmanniana subsp. lehmanniana		2
Ericaceae	Andersonia lehmanniana		2
Asteraceae	Angianthus drummondii		2
Haemodoraceae	Anigozanthos manglesii var. x angustifolius		2
Haemodoraceae	Anigozanthos viridis subsp. viridis		2
Solanaceae	Anthocercis		2
	Anthocerotophyta		2
Poaceae	Anthosachne scabra	Wheatgrass	2
Fabaceae	Aotus cordifolia		2
Fabaceae	Aotus intermedia		2
Apiaceae	Apium graveolens	Celery	2
Asparagaceae	Arthropodium	Vanilla Lilies	2
Bonnemaisoniaceae	Asparagopsis taxiformis		2
Asparagaceae	Asparagus plumosus	Ferny Climbing Asparagus Fern	2
Asteraceae	Asteridea		2
Chenopodiaceae	Atriplex prostrata	Hastate Orache	2
Poaceae	Austrostipa bronweniae		2
Poaceae	Austrostipa jacobsiana		2
Poaceae	Austrostipa pycnostachya		2
Poaceae	Austrostipa	Spear-grasses	2
Poaceae	Avellinia festucoides	Avellinia	2
Poaceae	Avena sativa	Oats	2
Salviniaceae	Azolla filiculoides	Pacific Azolla	2
Proteaceae	Banksia armata		2
Proteaceae	Banksia menziesii	Firewood Banksia	2
Myrtaceae	Beaufortia sparsa	Swamp Bottlebrush	2
Pittosporaceae	Billardiera laxiflora		2
Rutaceae	Boronia ramosa subsp. ramosa		2
Brassicaceae	Brassica tournefortii	Wild Turnip	2
Brassicaceae	Cakile edentula	American Sea Rocket	2
Orchidaceae	Caladenia denticulata subsp. rubella	Clumped Spider Orchid	2
Orchidaceae	Caladenia ferruginea	Rusty Spider Orchid	2
Orchidaceae	Caladenia filamentosa	Daddy Long-legs	2
Orchidaceae	Caladenia flava subsp. sylvestris	Karri Cowslip Orchid	2
Orchidaceae	Caladenia longicauda subsp. calcigena	Coastal White Spider Orchid	2
Orchidaceae	Caladenia longicauda subsp. clivicola	Hill's White Spider Orchid	2
Orchidaceae	Caladenia uliginosa	Darting Spider Orchid	2
Plantaginaceae	Callitriche brutia	Water Starwort	2
Cupressaceae	Callitris acuminata		2
Myrtaceae	Calothamnus graniticus		2
Myrtaceae	Calothamnus lateralis var. lateralis		2
Myrtaceae	Calothamnus rupestris	Mouse Ears	2
Myrtaceae	Calothamnus schaueri		2
Myrtaceae	Calytrix leschenaultii	Posy Starflower	2
Lauraceae	Cassytha micrantha		2
Casuarinaceae	Casuarina equisetifolia	Coastal She-oak	2
Casuarinaceae	Casuarina	Oaks	2
Caulerpaceae	Caulerpa geminata	Green Algae	2
Caulerpaceae	Caulerpa racemosa	Sea Grapes	2
Cyperaceae	Caustis flexuosa	Slender Twist-rush	2
Apiaceae	Centella asiatica	Indian Pennywort	2
Asparagaceae	Chamaescilla		2

Chenopodiaceae	Chenopodium macrospermum	Red-stem Goosefoot	2
Fabaceae	Chorizema glycinifolium		2
Fabaceae	Chorizema ilicifolium	Holly Flame Pea	2
Fabaceae	Chorizema		2
Asteraceae	Cichorium intybus	Chicory	2
Ranunculaceae	Clematis linearifolia	Slender Clematis	2
Codiaceae	Codium spongiosum	Green Algae	2
Polygalaceae	Comesperma flavum		2
Proteaceae	Conospermum capitatum subsp. glabratum		2
Proteaceae	Conospermum capitatum		2
Proteaceae	Conospermum flexuosum subsp. laevigatum		2
Haemodoraceae	Conostylis aculeata subsp. gracilis		2
Haemodoraceae	Conostylis candicans	Grey Cottonhead	2
Poaceae	Cortaderia selloana	Pampas Grass	2
Asteraceae	Cotula australis	Common Cotula	2
Asteraceae	Cotula bipinnata	Ferny Cotula	2
Asteraceae	Cotula cotuloides	Smooth Cotula	2
Rhamnaceae	Cryptandra arbutiflora var. tubulosa	Waxy Cryptandra	2
Cucurbitaceae	Cucurbita maxima	Ironbark Pumpkin	2
Juncaginaceae	Cycnogeton procerum	Common Water-ribbons	2
Cyperaceae	Cyperus congestus	Dense Flat-sedge	2
Cyperaceae	Cyperus polystachyos	Bunchy Flat-sedge	2
Orchidaceae	Cyrtostylis	Mosquito Orchids	2
Restionaceae	Cytogonidium leptocarpoides		2
Myrtaceae	Darwinia oederoides		2
Myrtaceae	Darwinia vestita	Pom-pom Darwinia	2
Fabaceae	Daviesia nudiflora		2
Restionaceae	Desmocladus virgatus		2
Asparagaceae	Dichopogon preissii	Nodding Chocolate Lily	2
Poaceae	Digitaria sanguinalis	Summer Grass	2
Orchidaceae	Diuris brevis	Short-nosed Donkey Orchid	2
Orchidaceae	Diuris laxiflora	Bee Orchid	2
Droseraceae	Drosera bulbigena	Midget Sundew	2
Droseraceae	Drosera squamosa		2
Droseraceae	Drosera stelliflora		2
Chenopodiaceae	Dysphania multifida	Scented Goosefoot	2
Elaeocarpaceae	Elaeocarpaceae		2
Poaceae	Eleusine indica	Crowsfoot Grass	2
Restionaceae	Empodisma gracillimum	Tanglefoot	2
Poaceae	Eragrostis curvula	African Love-grass	2
Myrtaceae	Eremaea asterocarpa		2
Geraniaceae	Erodium cicutarium	Common Herons-bill	2
Myrtaceae	Eucalyptus erythrocorys	Red-capped Gum	2
Myrtaceae	Eucalyptus macrocarpa	Blue Bush	2
Myrtaceae	Eucalyptus wandoo subsp. wandoo	Wandoo	2
Callithamniaceae	Euptilota		2
Moraceae	Ficus carica	Edible Fig	2
Fissidentaceae	Fissidens megalotis	Curly Pocket-moss	2
Fissidentaceae	Fissidens tenellus	Tiny Pocket-moss	2
Apiaceae	Foeniculum vulgare	Fennel	2
Cyperaceae	Gahnia	Saw-sedges	2
Galaxauraceae	Galaxauraceae		2
Rubiaceae	Galium divaricatum	Slender Bedstraw	2
Fabaceae	Gastrolobium bilobum	Heart-leaved Poison	2
Fabaceae	Gastrolobium ebracteolatum		2
Fabaceae	Gastrolobium spinosum	Prickly Poison	2

Asteraceae	Gazania linearis	Gazania	2
Geraniaceae	Geranium solanderi	Austral Geranium	2
Iridaceae	Gladiolus caryophyllaceus	Wild Gladiolus	2
Iridaceae	Gladiolus tristis	Evening-flower Gladiolus	2
Colchicaceae	Gloriosa superba	Glory Lily	2
Phrymaceae	Glossostigma diandrum	Glossostigma	2
Poaceae	Glyceria declinata	Manna Grass	2
Fabaceae	Gompholobium scabrum	Painted Lady	2
Goodeniaceae	Goodenia coerulea		2
Goodeniaceae	Goodenia incana	Hoary Goodenia	2
Gracilariaceae	Gracilaria secundata		2
Halymeniaceae	Grateloupia		2
Proteaceae	Grevillea pulchella subsp. pulchella		2
Proteaceae	Grevillea rosieri		2
Proteaceae	Grevillea vestita		2
Haemodoraceae	Haemodorum paniculatum	Mardja	2
Haemodoraceae	Haemodorum	Bloodroot	2
Proteaceae	Hakea ruscifolia	Candle Hakea	2
Asteraceae	Helianthus annuus	Sunflower	2
Asteraceae	Helianthus debilis subsp. cucumerifolius	Cucumberleaf Sunflower	2
Lamiaceae	Hemiandra		2
Dilleniaceae	Hibbertia ferruginea		2
Dilleniaceae	Hibbertia perfoliata		2
Dilleniaceae	Hibbertia quadricolor		2
Poaceae	Holcus lanatus	Yorkshire Fog	2
Asparagaceae	Hyacinthoides non-scripta	English Bluebell	2
Asteraceae	Hyalosperma praecox	Mayweed Sunray	2
Asteraceae	Hyalosperma simplex subsp. simplex		2
Araliaceae	Hydrocotyle scutellifera	Western Shield Pennywort	2
Myrtaceae	Hypocalymma angustifolium subsp. Swan Coastal Plain (G.J.Keighery 16777)		2
Convolvulaceae	Ipomoea indica	Purple Morning-glory	2
Isoetaceae	Isoetes drummondii	Plain Quillwort	2
Cyperaceae	Isolepis fluitans	Floating Club-rush	2
Proteaceae	Isopogon longifolius		2
Campanulaceae	Isotoma scapigera	Salt Isotome	2
Fabaceae	Isotropis		2
Corallinaceae	Jania		2
Juncaceae	Juncus articulatus	Jointed Rush	2
Juncaceae	Juncus kraussii subsp. australiensis	Juncus	2
Juncaceae	Juncus microcephalus	Tiny-headed Rush	2
Juncaceae	Juncus polyanthemus		2
Fabaceae	Kennedia		2
Myrtaceae	Kunzea	Tickbush	2
Asparagaceae	Lachenalia aloides		2
Asteraceae	Lactuca serriola	Prickly Lettuce	2
Proteaceae	Lambertia multiflora var. darlingensis		2
Fabaceae	Lathyrus tingitanus	Tangier Pea	2
Fabaceae	Latrobea tenella		2
Lamiaceae	Leonotis leonurus	Lion's Ear	2
Brassicaceae	Lepidium didymum	Lesser Swine's-cress	2
Cyperaceae	Lepidosperma striatum		2
Restionaceae	Leptocarpus coangustatus		2
Restionaceae	Leptocarpus crebriculmis		2
Restionaceae	Leptocarpus scoparius		2
Restionaceae	Leptocarpus tenax	Slender Twine-rush	2

Santalaceae	Leptomeria ellytes		2
Restionaceae	Lepyrodia hermaphrodita		2
Acrobolbaceae	Lethocolea		2
Ericaceae	Leucopogon pendulus		2
Ericaceae	Leucopogon polymorphus		2
Ericaceae	Leucopogon sp. Busselton (D.Cooper 243)		2
Liliaceae	Liliaceae		2
Poaceae	Lolium arundinaceum subsp. arundinaceum		2
Poaceae	Lolium	Ryegrass	2
Asparagaceae	Lomandra drummondii		2
Caprifoliaceae	Lonicera japonica	Japanese Honeysuckle	2
Restionaceae	Loxocarya cinerea		2
Fabaceae	Lupinus luteus	Yellow Lupin	2
Cyperaceae	Machaerina rubiginosa	Baumea	2
Pittosporaceae	Marianthus granulatus		2
Myrtaceae	Melaleuca acutifolia		2
Myrtaceae	Melaleuca nesophila	Showy Honey Myrtle	2
Myrtaceae	Melaleuca nodosa	Pricklyleaf Paperbark	2
Orchidaceae	Microtis orbicularis	Swamp Onion-orchid	2
Campanulaceae	Monopsis debilis var. depressa		2
Iridaceae	Moraea ochroleuca	Yellow Cape Tulip	2
Polygonaceae	Muehlenbeckia adpressa	Climbing Lignum	2
Scrophulariaceae	Myoporum caprarioides	Slender Myoporum	2
Haloragaceae	Myriophyllum	Water Milfoil	2
Amaryllidaceae	Narcissus tazetta subsp. italicus	Tazetta	2
Alliaceae	Nothoscordum gracile		2
Onagraceae	Oenothera drummondii subsp. drummondii	Beach Evening Primrose	2
Asteraceae	Olearia paucidentata	Autumn Scrub Daisy	2
Fabaceae	Ornithopus pinnatus	Slender Serradella	2
Hydrocharitaceae	Ottelia ovalifolia	Swamp Lily	2
Oxalidaceae	Oxalis depressa		2
Oxalidaceae	Oxalis	Wood Sorrel	2
Poaceae	Parapholis incurva	Curly Ryegrass	2
Poaceae	Paspalum distichum	Water Couch	2
Apiaceae	Pastinaca sativa	Parsnip	2
Iridaceae	Patersonia		2
Hypoxidaceae	Pauridia occidentalis var. occidentalis		2
Hypoxidaceae	Pauridia vaginata var. vaginata	Yellow Star	2
Myrtaceae	Pericalymma spongiocaule		2
Phacelocarpaceae	Phacelocarpus		2
Poaceae	Phalaris	Canary Grass	2
Orchidaceae	Pheladenia deformis	Bluebeard Orchid	2
Loganiaceae	Phyllangium divergens	Wiry Mitrewort	2
Phytolaccaceae	Phytolacca octandra	Red-ink Weed	2
Asteraceae	Picris squarrosa	Squat Picris	2
Thymelaeaceae	Pimelea longiflora		2
Thymelaeaceae	Pimelea suaveolens	Scented Banjine	2
Pittosporaceae	Pittosporum undulatum	Sweet Pittosporum	2
Plocamiaceae	Plocamium		2
Poaceae	Poa annua	Annual Meadow-grass	2
Poaceae	Poa porphyroclados		2
Asteraceae	Podotheca angustifolia	Sticky Long-heads	2
Poaceae	Polypogon monspeliensis	Annual Beardgrass	2
Potamogetonaceae	Potamogeton drummondii	Western Pondweed	2
Orchidaceae	Prasophyllum brownii	Christmas Leek Orchid	2
Orchidaceae	Prasophyllum elatum	Tall Leek-orchid	2

Orchidaceae	Prasophyllum ovale	Little Leek Orchid	2
Orchidaceae	Prasophyllum sp. early (G.Brockman GBB 1626)		2
Asteraceae	Pseudognaphalium luteoalbum	Jersey Cudweed	2
Gelidiaceae	Pterocladiella		2
Orchidaceae	Pterostylis brunneola	Giant Snail Orchid	2
Fabaceae	Pultenaea ochreata		2
Brassicaceae	Raphanus raphanistrum	Wild Radish	2
Restionaceae	Restionaceae	Rush	2
Rutaceae	Rhadinothamnus anceps	Blister Bush	2
	Rhodophyta		2
Euphorbiaceae	Ricinus communis	Castor Oil Plant	2
Zygophyllaceae	Roepera apiculata	Pointed Twinleaf	2
Iridaceae	Romulea obscura		2
Rosaceae	Rosa rubiginosa	Sweet Briar	2
Rosaceae	Rosa	Wild Rose/briar	2
Poaceae	Rytidosperma caespitosum	Common Wallaby-grass	2
Poaceae	Rytidosperma		2
Chenopodiaceae	Salicornia blackiana	Thick-head Samphire	2
Gentianaceae	Schenkia australis	Spike Centaury	2
Cyperaceae	Schoenus asperocarpus	Poison Sedge	2
Cyperaceae	Schoenus breviculmis	Matted Bog-rush	2
Cyperaceae	Schoenus discifer	Tiny Bog-rush	2
Cyperaceae	Schoenus laevigatus	Short-leaf Bog-sedge	2
Cyperaceae	Schoenus subflavus	Yellow Bog-rush	2
Sematophyllaceae	Sematophyllum homomallum	Bronze Signal-moss	2
Iridaceae	Sisyrinchium rosulatum	Scourweed	2
Fabaceae	Sphaerolobium drummondii	Globe Pea	2
Fabaceae	Sphaerolobium macranthum		2
Fabaceae	Sphaerolobium		2
Zygnemataceae	Spirogyra		2
Restionaceae	Sporadanthus strictus	Erect Scale Rush	2
Poaceae	Stenotaphrum secundatum	Buffalo Grass	2
Stylidiaceae	Stylidium androsaceum	Book Triggerplant	2
Stylidiaceae	Stylidium crassifolium	Thick-leaved Triggerplant	2
Stylidiaceae	Stylidium dichotomum	Pins And Needles	2
Stylidiaceae	Stylidium ecorne	Foot Triggerplant	2
Stylidiaceae	Stylidium hesperium	Western Reed Triggerplant	2
Stylidiaceae	Stylidium violaceum	Violet Triggerplant	2
Ericaceae	Styphelia	Styphelia	2
Chenopodiaceae	Suaeda		2
Proteaceae	Synaphea spinulosa		2
Pottiaceae	Syntrichia		2
Myrtaceae	Syzygium sp. (Bartle Frere)		2
Myrtaceae	Taxandria parviceps	Myrtle	2
Chenopodiaceae	Tecticornia	Samphires	2
Elaeocarpaceae	Tetratheca	Milkmaids	2
Cymodoceaceae	Thalassodendron pachyrhizum		2
Orchidaceae	Thelymitra fuscolutea	Chestnut Sun Orchid	2
Orchidaceae	Thelymitra variegata	Queen Of Sheba	2
Orchidaceae	Thelymitra villosa	Custard Orchid	2
Malvaceae	Thomasia macrocalyx		2
Thuidiaceae	Thuidiopsis sparsa	Weft Moss	2
Asparagaceae	Thysanotus arbuscula		2
Pottiaceae	Tortula muralis	Common Wall-moss	2
Pottiaceae	Tortula		2
Elaeocarpaceae	Tremandra diffusa		2

Haemodoraceae	Tribonanthes		2
Cyperaceae	Tricostularia neesii	Nees’ Tricostularia	2
Fabaceae	Trifolium fragiferum var. fragiferum	Strawberry Clover	2
Fabaceae	Trifolium glomeratum	Cluster Clover	2
Fabaceae	Trifolium hirtum	Rose Clover	2
Fabaceae	Trifolium ligusticum	Ligurian Clover	2
Juncaginaceae	Triglochin striata	Streaked Arrowgrass	2
Juncaginaceae	Triglochin trichophora	Torpedo Arrowgrass	2
Typhaceae	Typha orientalis	Bullrush	2
Typhaceae	Typha	Cumbungi	2
Lentibulariaceae	Utricularia menziesii	Redcoats	2
Myrtaceae	Verticordia drummondii	Drummond's Featherflower	2
Rhodomelaceae	Vidalia		2
Violaceae	Viola odorata	Common Violet	2
Iridaceae	Watsonia borbonica	Rosy Watsonia	2
Wrangeliaceae	Wrangeliaceae		2
Xanthorrhoeaceae	Xanthorrhoea brunonis subsp. brunonis	Grasstree	2
Apiaceae	Xanthosia atkinsoniana		2
Fabaceae	Acacia bidentata		1
Fabaceae	Acacia crispula		1
Fabaceae	Acacia drummondii subsp. affinis		1
Fabaceae	Acacia drummondii subsp. elegans		1
Fabaceae	Acacia drummondii	Drummond's Wattle	1
Fabaceae	Acacia mearnsii	Black Wattle	1
Fabaceae	Acacia microbotrya	Manna Wattle	1
Fabaceae	Acacia pycnocephala		1
Fabaceae	Acacia sessilis		1
Asparagaceae	Acanthocarpus		1
Myrtaceae	Actinodium cunninghamii	Swamp Daisy	1
Apiaceae	Actinotus leucocephalus	Flannel Flower	1
Loganiaceae	Adelphacme minima		1
Pteridaceae	Adiantum aethiopicum	Common Maidenhair	1
Euphorbiaceae	Adriana quadripartita	Rare Bitter-bush	1
Violaceae	Afrohybanthus enneaspermus	Ladys Slipper	1
Asparagaceae	Agave americana	Century Plant	1
Asparagaceae	Agave	Agave	1
Poaceae	Aira elegantissima	Delicate Hair-grass	1
Asparagaceae	Albuca bracteata	Pregnant Onion	1
Alliaceae	Allium triquetrum	Angled Onion	1
Casuarinaceae	Allocasuarina acutivalvis subsp. acutivalvis		1
Casuarinaceae	Allocasuarina ramosissima		1
Amaranthaceae	Alternanthera nodiflora	Common Joyweed	1
Amaranthaceae	Alternanthera	Chaff Flower	1
Amaranthaceae	Amaranthus blitum		1
Amaranthaceae	Amaranthus powellii	Powell's Amaranth	1
Poaceae	Amphibromus	Swamp Wallaby Grass	1
Poaceae	Amphipogon debilis		1
Anarthriaceae	Anarthria laevis		1
Ericaceae	Andersonia aristata	Rice Flower	1
Ericaceae	Andersonia micrantha		1
Ericaceae	Andersonia		1
Haemodoraceae	Anigozanthos bicolor	Little Kangaroo Paw	1
Haemodoraceae	Anigozanthos flavidus	Tall Kangaroo Paw	1
Wrangeliaceae	Anotrichium		1
Solanaceae	Anthocercis ilicifolia subsp. ilicifolia		1
Apiaceae	Anthriscus caucalis	Burr Chervil	1

Fabaceae	Aotus procumbens		1
Fabaceae	Aotus		1
Centrolepidaceae	Aphelia drummondii		1
Apocynaceae	Araujia sericifera	White Bladder-flower	1
Poaceae	Aristida holathera var. holathera	Tall Kerosene Grass	1
Asteraceae	Artemisia verlotiorum	Chinese Wormwood	1
Corallinaceae	Arthrocardia wardii		1
Asparagaceae	Arthropodium fimbriatum	Nodding Chocolate Lily	1
Asparagaceae	Asparagaceae	Fringed Lily	1
Asparagaceae	Asparagus declinatus	Bridal Veil	1
Aspleniaceae	Asplenium aethiopicum	Shredded Spleenwort	1
Myrtaceae	Astartea pulchella		1
Myrtaceae	Astartea zephyra		1
	Asterales		1
Chenopodiaceae	Atriplex hortensis	Garden Orache	1
Chenopodiaceae	Atriplex hypoleuca		1
Chenopodiaceae	Atriplex nummularia	Old-man Saltbush	1
Chenopodiaceae	Atriplex paludosa	Marsh Saltbush	1
Chenopodiaceae	Atriplex	Orache	1
Poaceae	Austrostipa hemipogon	Half-bearded Spear-grass	1
Poaceae	Austrostipa mollis	Soft Speargrass	1
Poaceae	Austrostipa scabra subsp. scabra	Rough Spear-grass	1
Poaceae	Avena	Oat	1
Salviniaceae	Azolla pinnata	Ferny Azolla	1
Iridaceae	Babiana stricta	Baboon-flower	1
Iridaceae	Babiana		1
Myrtaceae	Baeckea		1
Colchicaceae	Baeometra uniflora	Baeometra	1
Poaceae	Bambusa	Unidentified Bamboo	1
Proteaceae	Banksia dallanneyi var. dallanneyi		1
Proteaceae	Banksia prionotes	Acorn Banksia	1
Proteaceae	Banksia sphaerocarpa var. sphaerocarpa	Round-fruited Banksia	1
Proteaceae	Banksia sphaerocarpa	Fox Banksia	1
Proteaceae	Banksia verticillata	Albany Banksia	1
Asteraceae	Berkheya rigida	African Thistle	1
Pittosporaceae	Billardiera fraseri	Elegant Pronaya	1
Pittosporaceae	Billardiera heterophylla	Bluebell Creeper	1
Cyperaceae	Bolboschoenus		1
Rutaceae	Boronia cymosa	Granite Boronia	1
Rutaceae	Boronia megastigma	Scented Boronia	1
Rutaceae	Boronia molloyae	Tall Boronia	1
Rutaceae	Boronia ramosa subsp. anethifolia		1
Rutaceae	Boronia ramosa		1
Rutaceae	Boronia tetragona		1
Boryaceae	Borya nitida	Pincushions	1
Boryaceae	Borya		1
Fabaceae	Bossiaea linophylla	Narrow-leaved Bossiaea	1
Fabaceae	Bossiaea		1
Malvaceae	Brachychiton populneus	Kurrajong	1
Asteraceae	Brachyscome		1
Brassicaceae	Brassica x juncea	Indian Mustard	1
Brassicaceae	Brassica x napus	Rape	1
Bryaceae	Bryum		1
Asphodelaceae	Bulbine semibarbata	Leek Lily	1
Colchicaceae	Burchardia bairdiae		1
Brassicaceae	Cakile maritima subsp. maritima	Sea Rocket	1

Orchidaceae	Caladenia barbarossa	Dragon Orchid	1
Orchidaceae	Caladenia bicalliata	Spider Orchid	1
Orchidaceae	Caladenia cairnsiana	Zebra Orchid	1
Orchidaceae	Caladenia longiclavata	Clubbed Spider Orchid	1
Orchidaceae	Caladenia magniclavata	Big Clubbed Spider Orchid	1
Orchidaceae	Caladenia nana subsp. unita	Pink Fan Orchid	1
Orchidaceae	Caladenia plicata	Crab-lipped Spider Orchid	1
Orchidaceae	Caladenia splendens	Splendid Spider Orchid	1
Portulacaceae	Calandrinia brevipedata	Short-stalked Purslane	1
Portulacaceae	Calandrinia corrigioloides	Strap Purslane	1
Portulacaceae	Calandrinia polyandra	Parakeelya	1
Portulacaceae	Calandrinia	Parakeelya	1
Orchidaceae	Caleana brockmanii		1
Orchidaceae	Caleana hortiorum		1
Dasypogonaceae	Calectasia cyanea	Blue Tinsel Lily	1
Callithamniaceae	Callithamnion		1
Cupressaceae	Callitris	Cypress-pine	1
Myrtaceae	Calytrix tetragona	Grampians Fringe-myrtle	1
Myrtaceae	Calytrix	Fringe Myrtle	1
Bignoniaceae	Campsis radicans		1
Cyperaceae	Carex appressa	Tall Sedge	1
Cyperaceae	Carex	Sedges	1
Aizoaceae	Carpobrotus edulis	Hottentot Fig	1
	Caryophyllales		1
Lauraceae	Cassytha flava	Dodder Laurel	1
Lauraceae	Cassytha glabella f. casuarinae		1
Lauraceae	Cassytha pomiformis	Dodder Laurel	1
Lauraceae	Cassytha pubescens	Downy Dodder-laurel	1
Caulerpaceae	Caulerpaceae		1
Poaceae	Cenchrus macrourus	African Feather Grass	1
Poaceae	Cenchrus spinifex	Spiny Burr Grass	1
Poaceae	Cenchrus	Buffel Grass	1
Caprifoliaceae	Centranthus		1
Centrolepidaceae	Centrolepis inconspicua		1
Cephaloziellaceae	Cephaloziella exiliflora	Crimson Coalwort	1
Scapaniaceae	Chaetophyllopsis whiteleggei	Grey Woollywort	1
Fabaceae	Chamaecytisus palmensis	Tree Lucerne	1
Asparagaceae	Chamaescilla gibsonii		1
Myrtaceae	Chamelaucium sp. Yoongarillup (G.J.Keighery 3635)		1
Characeae	Chara		1
Iridaceae	Chasmanthe floribunda	African Cornflag	1
Pteridaceae	Cheilanthes tenuifolia	Rock Fern	1
Chenopodiaceae	Chenopodium auricomiforme		1
Chenopodiaceae	Chenopodium glaucum	Glaucous Goosefoot	1
Chenopodiaceae	Chenopodium murale	Sowbane	1
Chenopodiaceae	Chenopodium	Fat Hen	1
Poaceae	Chloris gayana	Rhodes Grass	1
	Chlorophyta		1
Fabaceae	Chorizema aciculare subsp. aciculare		1
Fabaceae	Chorizema aciculare subsp. laxum		1
Fabaceae	Chorizema nanum		1
Asteraceae	Cirsium vulgare	Spear Thistle	1
Ranunculaceae	Clematis microphylla	Small-leaved Clematis	1
Ranunculaceae	Clematis	Old Man's Beard	1
Rhodymeniaceae	Coelarthrum		1
Polygalaceae	Comesperma calymega	Blue-spike Milkwort	1

Polygalaceae	Comesperma polygaloides	Small Milkwort	1
Proteaceae	Conospermum caeruleum	Blue Brother	1
Proteaceae	Conospermum stoechadis	Common Smokebush	1
Ericaceae	Conostephium	Pearl Flowers	1
Haemodoraceae	Conostylis candicans subsp. candicans		1
Convolvulaceae	Convolvulus angustissimus subsp. angustissimus	Blushing Bindweed	1
Convolvulaceae	Convolvulus arvensis	Common Bindweed	1
Myrtaceae	Corymbia maculata	Spotted Gum	1
Hemerocallidaceae	Corynotheca micrantha var. elongata		1
Crassulaceae	Crassula alata		1
Crassulaceae	Crassula natans var. minor	Water Crassula	1
Asteraceae	Crepis foetida subsp. foetida	Stinking Hawksbeard	1
Rutaceae	Crowea angustifolia var. platyphylla	Bush Crowea	1
Rhamnaceae	Cryptandra nutans		1
Cucurbitaceae	Cucumis sp. Bunbury (G.Brayshaw s.n. 26/2/91)		1
Convolvulaceae	Cuscuta campestris	Golden Dodder	1
Convolvulaceae	Cuscuta epithymum	Common Dodder	1
Convolvulaceae	Cuscuta suaveolens	Fringed Dodder	1
Orchidaceae	Cyanicula caerulea	Blue Fairy	1
Orchidaceae	Cyanicula	Blue Orchids	1
Juncaginaceae	Cycnogeton		1
Poaceae	Cynosurus echinatus	Rough Dog's Tail	1
Cyperaceae	Cyperus involucratus	Umbrella Plant	1
Cyperaceae	Cyperus laevigatus	Nutgrass	1
Cyperaceae	Cyperus latzii	Nutgrass	1
Cyperaceae	Cyperus		1
Poaceae	Dactylis glomerata	Cocksfoot	1
Goodeniaceae	Dampiera hederacea	Karri Dampiera	1
Dasyaceae	Dasya		1
Fabaceae	Daviesia horrida	Prickly Bitter-pea	1
Fabaceae	Daviesia incrassata subsp. incrassata		1
Fabaceae	Daviesia inflata		1
Fabaceae	Daviesia nudiflora subsp. nudiflora		1
Fabaceae	Daviesia podophylla		1
Fabaceae	Daviesia polyphylla		1
Fabaceae	Daviesia	Bitter Peas	1
Hemerocallidaceae	Dianella brevicaulis	Small-flower Flax-lily	1
Goodeniaceae	Diaspasis filifolia	Thread-leaved Diaspasis	1
Pottiaceae	Didymodon australasiae	Beard Moss	1
Pottiaceae	Didymodon torquatus	Beard Moss	1
Fabaceae	Dillwynia dillwynioides		1
Fabaceae	Dillwynia laxiflora		1
Fabaceae	Dillwynia	Egg And Bacon Peas	1
Asteraceae	Dimorphotheca ecklonis	Cape Daisy	1
Asteraceae	Dimorphotheca	Cape Marigold	1
Rutaceae	Diplolaena drummondii	Lesser Diplolaena	1
Rutaceae	Diplolaena grandiflora	Wild Rose	1
Rutaceae	Diplolaena		1
Brassicaceae	Diplotaxis	Rocket	1
Asteraceae	Dittrichia graveolens	Stinkwort	1
Orchidaceae	Diuris amplissima	Giant Donkey Orchid	1
Orchidaceae	Diuris brumalis	Winter Donkey Orchid	1
Orchidaceae	Diuris carinata	Tall Bee Orchid	1
Orchidaceae	Diuris drummondii	Tall Donkey Orchid	1
Sapindaceae	Dodonaea	Hopbush	1
Orchidaceae	Drakaea micrantha	Dwarf Hammer Orchid	1

Orchidaceae	Drakaea	Hammer Orchids	1
Droseraceae	Drosera geniculata		1
Droseraceae	Drosera huegelii	Bold Sundew	1
Droseraceae	Drosera intricata		1
Droseraceae	Drosera microphylla	Golden Rainbow	1
Droseraceae	Drosera myriantha	Star Rainbow	1
Droseraceae	Drosera nitidula	Shining Sundew	1
Droseraceae	Drosera tubaestylis		1
Elatinaceae	Elatine gratioloides	Waterwort	1
Onagraceae	Epilobium billardiereanum subsp. intermedium	Variable Willow-herb	1
Onagraceae	Epilobium ciliatum	Glandular Willow-herb	1
Poaceae	Eragrostis brownii	Bentham's Love-grass	1
Poaceae	Eragrostis elongata	Lovegrass	1
Myrtaceae	Eremaea asterocarpa subsp. asterocarpa		1
Myrtaceae	Eremaea pauciflora		1
Asteraceae	Erigeron	Fleabane	1
Orchidaceae	Eriochilus dilatatus subsp. magnus	Easter Bunny Orchid	1
Orchidaceae	Eriochilus scaber	Pink Bunny Orchid	1
Orchidaceae	Eriochilus	Bunny Orchids	1
Geraniaceae	Erodium moschatum	Musky Herons-bill	1
Myrtaceae	Eucalyptus adesmophloia	Wellstead Mallee	1
Myrtaceae	Eucalyptus decipiens	Redheart	1
Myrtaceae	Eucalyptus diversicolor	Karri	1
Myrtaceae	Eucalyptus marginata subsp. thalassica	Blue-leaved Jarrah	1
Myrtaceae	Eucalyptus patens	Blackbutt	1
Myrtaceae	Eucalyptus vegrandis	Ongerup Mallee	1
Asteraceae	Euchiton sphaericus	Common Cudweed	1
Euphorbiaceae	Euphorbia dendroides	Tree Spurge	1
Euphorbiaceae	Euphorbia peplus	Cancer Weed	1
Euphorbiaceae	Euphorbia terracina	False Caper	1
Euphorbiaceae	Euphorbiaceae	Spurge	1
Euphorbiaceae	Euphorbia	Spurge	1
Fabaceae	Eutaxia epacridoides		1
Fabaceae	Eutaxia myrtifolia		1
Cyperaceae	Evandra aristata	Zebra Sedge	1
Convolvulaceae	Evolvulus alsinoides var. sericeus	Tropical Speedwell	1
Faucheaceae	Faucheaceae		1
Cyperaceae	Fimbristylis velata	Veiled Fringe-rush	1
Fossombroniaceae	Fossombronia australis	Cellophane Frillwort	1
Fossombroniaceae	Fossombronia pusilla	Common Frillwort	1
Frankeniaceae	Frankenia	Sea-heath	1
Iridaceae	Freesia leichtlinii	Freesia	1
Papaveraceae	Fumaria bastardii	Bastard Fumitory	1
Funariaceae	Funaria hygrometrica	Common Cord-moss	1
Cyperaceae	Gahnia decomposita		1
Rubiaceae	Galium spurium	Bedstraw	1
Fabaceae	Gastrolobium celsianum		1
Fabaceae	Gastrolobium retusum		1
Bryaceae	Gemmabryum pachytheca	Acorn-fruited Thread-moss	1
Geraniaceae	Geranium gardneri	Rough Cranes-bill	1
Polemoniaceae	Gilia		1
Iridaceae	Gladiolus carneus	Broad-leaf Painted Lady	1
Iridaceae	Gladiolus communis subsp. byzantinus	Byzantine Gladiolus	1
Asteraceae	Glebionis segetum	Corn Marigold	1
Haloragaceae	Glischrocaryon angustifolium	Golden Pennants	1
Asteraceae	Gnephosis angianthoides		1

Fabaceae	Gompholobium burtonioides		1
Fabaceae	Gompholobium ovatum		1
Haloragaceae	Gonocarpus nodulosus		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain A (M.Hislop 634)		1
Goodeniaceae	Goodenia pulchella subsp. Coastal Plain B (L.W.Sage 2336)		1
Goodeniaceae	Goodeniaceae	Fan Flower	1
Campanulaceae	Grammatotheca bergiana var. bergiana		1
Campanulaceae	Grammatotheca bergiana		1
Plantaginaceae	Gratiola pubescens	Glandular Brooklime	1
Proteaceae	Grevillea dryandri subsp. dryandri	Dryander's Grevillea	1
Proteaceae	Grevillea preissii	Spider Net Grevillea	1
Proteaceae	Grevillea wilsonii	Wilson's Grevillea	1
Proteaceae	Hakea laurina	Pincushion Hakea	1
Proteaceae	Hakea marginata		1
Proteaceae	Hakea trifurcata	Two-leaf Hakea	1
Hydrocharitaceae	Halophila ovalis	Halophila	1
Asteraceae	Helichrysum		1
Boraginaceae	Heliotropium	Heliotrope	1
Poaceae	Hemarthria uncinata var. uncinata	Mat Grass	1
Poaceae	Hemarthria uncinata	Matgrass	1
Lamiaceae	Hemiandra glabra		1
Lamiaceae	Hemigenia sericea	Silky Hemigenia	1
Rhodomelaceae	Herposiphonia		1
Dilleniaceae	Hibbertia mylnei		1
Dilleniaceae	Hibbertia pilosa	Hairy Guinea Flower	1
Dilleniaceae	Hibbertia semipilosa		1
Malvaceae	Hibiscus drummondii		1
Hemerocallidaceae	Hodgsoniola junciformis		1
Poaceae	Hordeum leporinum	Barley Grass	1
Poaceae	Hordeum marinum	Sea Barley-grass	1
Fabaceae	Hovea pungens	Devils Pins	1
Asparagaceae	Hyacinthoides	Wood Hyacinth	1
Asteraceae	Hyalosperma demissum	Dwarf Sunray	1
Asteraceae	Hyalosperma glutinosum subsp. glutinosum	Golden Sunray	1
Violaceae	Hybanthus debilissimus		1
Araliaceae	Hydrocotyle hispidula		1
Rhodymeniaceae	Hymenocladia		1
Gloiosiphoniaceae	Hypnea charoides		1
Gloiosiphoniaceae	Hypnea		1
Myrtaceae	Hypocalymma cordifolium		1
Myrtaceae	Hypocalymma ericifolium		1
Restionaceae	Hypolaena fastigiata	Tassel Rope Rush	1
Hypoxidaceae	Hypoxidaceae		1
Cyperaceae	Isolepis prolifera	Proliferous Club-sedge	1
Proteaceae	Isopogon attenuatus		1
Proteaceae	Isopogon formosus subsp. dasylepis		1
Proteaceae	Isopogon formosus	Rose Coneflower	1
Proteaceae	Isopogon	Drumsticks	1
Iridaceae	Ixia cultivar	Ixia	1
Fabaceae	Jacksonia spinosa		1
Corallinaceae	Jania affinis		1
Juncaceae	Juncus caespiticius	Grassy Rush	1
Juncaceae	Juncus hybridus		1
Juncaceae	Juncus subsecundus	Finger Rush	1
Juncaceae	Juncus	Rushes	1
Fabaceae	Kennedia coccinea subsp. calcaria		1

Fabaceae	Kennedia nigricans	Black Coral-pea	1
Fabaceae	Kennedia rubicunda	Red Kennedy Pea	1
Myrtaceae	Kunzea ericifolia	Spearwood	1
Lepidoziaceae	Kurzia compacta	Fingerwort	1
Asparagaceae	Lachenalia flava		1
Asparagaceae	Lachenalia	Lachenalia	1
Asteraceae	Lactuca sativa	Lettuce	1
Asteraceae	Lagenophora platysperma		1
Characeae	Lamprothamnium		1
Verbenaceae	Lantana camara	Lantana	1
Malvaceae	Lasiopetalum laxiflorum		1
Malvaceae	Lasiopetalum	Velvet Bush	1
Lamiaceae	Lavandula dentata	French Lavender	1
Malvaceae	Lawrencia spicata	Salt Lawrencia	1
Asparagaceae	Laxmannia minor		1
Asparagaceae	Laxmannia ramosa subsp. ramosa	Branching Lily	1
Cyperaceae	Lepidosperma calcicola		1
Cyperaceae	Lepidosperma costale		1
Cyperaceae	Lepidosperma effusum	Spreading Sword-sedge	1
Cyperaceae	Lepidosperma leptostachyum		1
Cyperaceae	Lepidosperma sp. Blackwood (R.Davis 7696)		1
Cyperaceae	Lepidosperma sp. Margaret River (B.J.Lepschi 1841)		1
Orchidaceae	Leporella	Fringed Hare-orchid	1
Restionaceae	Leptocarpus denmarkicus		1
Restionaceae	Leptocarpus laxus		1
Restionaceae	Leptocarpus thysananthus		1
Restionaceae	Leptocarpus trisepalus		1
Restionaceae	Leptocarpus		1
Santalaceae	Leptomeria empetriformis		1
Santalaceae	Leptomeria furtiva		1
Santalaceae	Leptomeria scrobiculata		1
Myrtaceae	Leptospermum laevigatum	Coast Tea-tree	1
Myrtaceae	Leptospermum sericatum		1
Restionaceae	Lepyrodia		1
Ericaceae	Leucopogon gracilis		1
Ericaceae	Leucopogon nutans	Drooping Leucopogon	1
Ericaceae	Leucopogon oldfieldii		1
Ericaceae	Leucopogon reflexus		1
Ericaceae	Leucopogon striatus		1
Stylidiaceae	Levenhookia aestiva		1
Stylidiaceae	Levenhookia	Styleworts	1
Menyanthaceae	Liparophyllum capitatum		1
Campanulaceae	Lobelia rarifolia		1
Campanulaceae	Lobelia rhombifolia	Tufted Lobelia	1
Campanulaceae	Lobelia tenuior subsp. tenuior	Slender Lobelia	1
Loganiaceae	Logania vaginalis	White Spray	1
Asteraceae	Logfia gallica	Narrow Cudweed	1
Poaceae	Lolium x hybridum	Hybrid Ryegrass	1
Asparagaceae	Lomandra maritima	Maritime Mat Rush	1
Asparagaceae	Lomandra micrantha subsp. tuberculata	Small-flowered Mat-rush	1
Asparagaceae	Lomandra pauciflora		1
Caprifoliaceae	Lonicera	Honeysuckle	1
Lophocoleaceae	Lophocolea		1
Fabaceae	Lupinus albus		1
Ericaceae	Lysinema elegans		1
Lythraceae	Lythrum hyssopifolia	Lesser Loosestrife	1

Cyperaceae	Machaerina articulata	Jointed Twig-rush	1
Cyperaceae	Machaerina vaginalis		1
Malvaceae	Malva arborea	Tree Mallow	1
Marsileaceae	Marsilea drummondii	Clover Fern	1
Asteraceae	Mauranthemum paludosum	Ox-eye Daisy	1
Fabaceae	Medicago littoralis	Strand Medic	1
Fabaceae	Medicago orbicularis	Button Medic	1
Myrtaceae	Melaleuca huegelii	Chenille Honeymyrtle	1
Myrtaceae	Melaleuca incana	Grey Honeymyrtle	1
Myrtaceae	Melaleuca microphylla		1
Myrtaceae	Melaleuca osullivanii		1
Myrtaceae	Melaleuca quinquenervia	Swamp Paperbark	1
Myrtaceae	Melaleuca seriata		1
Myrtaceae	Melaleuca uncinata	Broombush	1
Myrtaceae	Melaleuca viminea	Mohan	1
Melianthaceae	Melianthus major	Cape Honey-flower	1
Fabaceae	Melilotus albus	Bokhara Clover	1
Poaceae	Melinis repens	Red Natal-grass	1
Lamiaceae	Mentha suaveolens	Apple Mint	1
Aizoaceae	Mesembryanthemum	Iceplant	1
Cyperaceae	Mesomelaena stygia subsp. stygia		1
Cyperaceae	Mesomelaena stygia		1
Poaceae	Microlaena stipoides var. stipoides	Weeping Rice-grass	1
Orchidaceae	Microtis alba	White Mignonette Orchid	1
Orchidaceae	Microtis cupularis	Cupped Mignonette Orchid	1
Orchidaceae	Microtis media subsp. densiflora	Dense Mignonette Orchid	1
Orchidaceae	Microtis quadrata	South Coast Mignonette Orchid	1
Orchidaceae	Microtis unifolia	Common Onion Orchid	1
Nyctaginaceae	Mirabilis jalapa	Marvel-of-peru	1
Fabaceae	Mirbelia dilatata	Holly-leaved Mirbelia	1
Asteraceae	Monoculus monstrosus	Tripteris	1
Iridaceae	Moraea miniata	Two-leaf Cape Tulip	1
Polygonaceae	Muehlenbeckia complexa	Wire Vine	1
Asteraceae	Myriocephalus helichrysoides		1
Haloragaceae	Myriophyllum limnophilum		1
Haloragaceae	Myriophyllum propinquum	Water Milfoil	1
Haloragaceae	Myriophyllum tillaeoides		1
Amaryllidaceae	Narcissus pseudonarcissus	Common Daffodil	1
Amaryllidaceae	Narcissus tazetta	Polyanthus Narcissus	1
Ericaceae	Needhamiella pumilio		1
Nymphaeaceae	Nymphaea mexicana	Mexican Water-lily	1
Onagraceae	Oenothera stricta	Common Evening Primrose	1
Rubiaceae	Opercularia echinocephala	Bristly Headed Stinkweed	1
Loganiaceae	Orianthera serpyllifolia subsp. serpyllifolia		1
Loganiaceae	Orianthera wendyae		1
Menyanthaceae	Ornduffia		1
Asparagaceae	Ornithogalum thyrsoides	Chincherinchee	1
Hydrocharitaceae	Ottelia ovalifolia subsp. ovalifolia	Swamp Lily	1
Oxalidaceae	Oxalis incarnata	Pale Wood-sorrel	1
Oxalidaceae	Oxalis purpurea	One-o'clock	1
Fabaceae	Oxylobium	Shaggy Peas	1
Poaceae	Panicum capillare	Common Millet	1
Fabaceae	Paraserianthes lophantha subsp. lophantha	Crested Wattle	1
Fabaceae	Paraserianthes lophantha	Cape Leeuwin Wattle	1
Vitaceae	Parthenocissus quinquefolia	Virginia Creeper	1
Poaceae	Paspalum vaginatum	Water Couch	1

Poaceae	Paspalum	Paspalum	1
Passifloraceae	Passiflora caerulea	Blue Passionflower	1
Passifloraceae	Passiflora filamentosa	Palmate Passionflower	1
Iridaceae	Patersonia occidentalis var. occidentalis	Long Purple-flag	1
Hypoxidaceae	Pauridia occidentalis		1
Hypoxidaceae	Pauridia		1
Geraniaceae	Pelargonium x domesticum	Pelargonium	1
Geraniaceae	Pelargonium x hortorum	Zonal Pelargonium	1
Polygonaceae	Persicaria decipiens	Slender Knotweed	1
Polygonaceae	Persicaria	Smartweeds	1
Proteaceae	Persoonia	Geebungs	1
Poaceae	Phalaris aquatica	Phalaris	1
Poaceae	Phalaris minor	Lesser Canary-grass	1
Lycopodiaceae	Phylloglossum drummondii	Pigmy Clubmoss	1
Solanaceae	Physalis hederifolia	Ivy-leaf Ground-cherry	1
Solanaceae	Physalis peruviana	Cape Gooseberry	1
Asteraceae	Picris angustifolia	Native Picris	1
Asteraceae	Picris	Ox-tongue	1
Thymelaeaceae	Pimelea angustifolia	Narrow-leaved Pimelea	1
Thymelaeaceae	Pimelea ciliata	White Banjine	1
Thymelaeaceae	Pimelea hispida	Bristly Pimelea	1
Thymelaeaceae	Pimelea imbricata		1
Thymelaeaceae	Pimelea lehmanniana subsp. nervosa		1
Plantaginaceae	Plantago	Plantain	1
Plocamiaceae	Plocamium cartilagineum		1
Poaceae	Poa labillardierei	Common Tussock-grass	1
Poaceae	Poa poiformis var. poiformis	Coast Tussock-grass	1
Asteraceae	Podolepis lessonii		1
Asteraceae	Podolepis nutans		1
Caryophyllaceae	Polycarpon tetraphyllum	Four-leaf Allseed	1
	Polypodiales		1
Rhodomelaceae	Polysiphonia sertularioides		1
Potamogetonaceae	Potamogeton	Pondweeds	1
Orchidaceae	Prasophyllum cyphochilum	Pouched Leek Orchid	1
Orchidaceae	Prasophyllum drummondii	Swamp Leek Orchid	1
Orchidaceae	Prasophyllum gracillimum	Slender Leek Orchid	1
Rosaceae	Prunus cerasifera	Purple-leaf Cherry-plum	1
Rosaceae	Prunus persica	Peach	1
Euphorbiaceae	Pseudanthus		1
Asteraceae	Pseudognaphalium		1
Pterocladiaceae	Pterocladia		1
Rhodomelaceae	Pterosiphonia pennata		1
Orchidaceae	Pterostylis actites	Coastal Short-eared Snail Orchid	1
Orchidaceae	Pterostylis glebosa	Clubbed Snail Orchid	1
Orchidaceae	Pterostylis serotina	Late Bird Orchid	1
Amaranthaceae	Ptilotus drummondii	Narrowleaf Mulla Mulla	1
Amaranthaceae	Ptilotus sericostachyus subsp. sericostachyus		1
Amaranthaceae	Ptilotus stirlingii subsp. stirlingii		1
Fabaceae	Pultenaea ericifolia		1
Asteraceae	Pycnosorus globosus	Drumsticks	1
Ranunculaceae	Ranunculus muricatus	Pricklefruit Buttercup	1
Ranunculaceae	Ranunculus pumilio	Ferny Buttercup	1
Brassicaceae	Raphanus	Radish	1
Chenopodiaceae	Rhagodia baccata subsp. dioica	Sea Berry Saltbush	1
Asteraceae	Rhodanthe chlorocephala subsp. rosea	Common Everlasting	1
Asteraceae	Rhodanthe corymbosa		1

Asteraceae	Rhodanthe floribunda	Large White Sunray	1
Asteraceae	Rhodanthe propinqua		1
Cystocloniaceae	Rhodophyllis		1
Aneuraceae	Riccardia crassa	Yellow Germanderwort	1
Ricciaceae	Riccia crystallina	Blue Crystalwort	1
Ricciaceae	Riccia		1
Zygophyllaceae	Roepera fruticulosa		1
Iridaceae	Romulea flava var. minor	Yellow Onion-grass	1
Iridaceae	Romulea flava		1
Brassicaceae	Rorippa nasturtium-aquaticum	Watercress	1
Lamiaceae	Rosmarinus officinalis	Rosemary	1
Bryaceae	Rosulabryum albolimbatum	Thread Moss	1
Bryaceae	Rosulabryum billarderii	Common Thread-moss	1
Polygonaceae	Rumex acetosella	Sorrel	1
Polygonaceae	Rumex brownii	Swamp Dock	1
Polygonaceae	Rumex obtusifolius	Broad-leaf Dock	1
Polygonaceae	Rumex vesicarius	Bladder Dock	1
Polygonaceae	Rumex	Emex	1
Poaceae	Rytidosperma acerosum		1
Poaceae	Rytidosperma duttonianum	Brown-back Wallaby-grass	1
Poaceae	Rytidosperma penicillatum	Slender Wallaby Grass	1
Caryophyllaceae	Sagina maritima	Sea Pearlwort	1
Salicaceae	Salix babylonica	Weeping Willow	1
Salicaceae	Salix x sepulcralis	Weeping Willow	1
Salicaceae	Salix	Willow	1
Goodeniaceae	Scaevola glandulifera	Viscid Hand-flower	1
Goodeniaceae	Scaevola lanceolata	Long-leaved Scaevola	1
Goodeniaceae	Scaevola nitida	Shining Fanflower	1
Anacardiaceae	Schinus terebinthifolia	Brazilian Pepper Tree	1
Anacardiaceae	Schinus	Pepper Tree	1
Asteraceae	Schoenia cassiniana	Pink Everlasting	1
Cyperaceae	Schoenus elegans		1
Cyperaceae	Schoenus loliaceus		1
Cyperaceae	Schoenus sp. Little black fruit (A.C.Beauglehole ACB 12538)		1
Cyperaceae	Schoenus subbarbatus	Bearded Bog-rush	1
Cyperaceae	Schoenus subbulbosus		1
Cyperaceae	Schoenus subfascicularis		1
Asparagaceae	Scilla peruviana	Cuban Lily	1
Sematophyllaceae	Sematophyllum subhumile var. contiguum	Pallid Signal-moss	1
Sematophyllaceae	Sematophyllum		1
Asteraceae	Senecio diaschides	Shingle Fireweed	1
Asteraceae	Senecio hispidulus	Rough Fireweed	1
Asteraceae	Senecio lautus	Variable Groundsel	1
Asteraceae	Senecio vulgaris	Common Groundsel	1
Poaceae	Setaria palmifolia	Palm Grass	1
Malvaceae	Sida hookeriana		1
Caryophyllaceae	Silene gallica var. gallica	French Catchfly	1
Asteraceae	Siloxerus filifolius		1
Asteraceae	Silybum marianum	Variegated Thistle	1
Siphonocladaceae	Siphonocladaceae		1
Brassicaceae	Sisymbrium irio	London Rocket	1
Brassicaceae	Sisymbrium officinale	Hedge Mustard	1
Solanaceae	Solanum elaeagnifolium	Silver-leaf Nightshade	1
Solanaceae	Solanum linnaeanum	Apple Of Sodom	1
Solanaceae	Solanum symonii	Symon's Kangaroo-apple	1
Solanaceae	Solanum	Nightshades	1

Urticaceae	Soleirolia soleirolii	Baby's Tears	1
Asteraceae	Soliva sessilis	Jo-jo	1
Asteraceae	Sonchus asper	Rough Sow-thistle	1
Asteraceae	Sonchus hydrophilus	Native Sow-thistle	1
Poaceae	Sorghum x drummondii		1
Caryophyllaceae	Spergularia rubra	Sand Spurry	1
Ericaceae	Sphenotoma		1
Poaceae	Spinifex		1
Celastraceae	Stackhousia pubescens		1
Proteaceae	Stirlingia		1
Strelitziaceae	Strelitzia nicolai	Giant Bird Of Paradise	1
Stylidiaceae	Stylidium acuminatum subsp. acuminatum		1
Stylidiaceae	Stylidium breviscapum	Boomerang Triggerplant	1
Stylidiaceae	Stylidium diuroides	Donkey Triggerplant	1
Stylidiaceae	Stylidium graminifolium	Grass Triggerplant	1
Stylidiaceae	Stylidium hispidum	White Butterfly Triggerplant	1
Stylidiaceae	Stylidium lateriticola		1
Stylidiaceae	Stylidium lineatum	Sunny Triggerplant	1
Stylidiaceae	Stylidium longitubum	Jumping Jacks	1
Stylidiaceae	Stylidium squamosotuberosum	Fleshy-rhizomed Triggerplant	1
Asteraceae	Symphyotrichum subulatum	Wild Aster	1
Proteaceae	Synaphea favosa		1
Proteaceae	Synaphea flabelliformis		1
Proteaceae	Synaphea sp. Serpentine (G.R.Brand 103)		1
Pottiaceae	Syntrichia antarctica	Bristly Screw-moss	1
Pottiaceae	Syntrichia papillosa	Screw Moss	1
Pottiaceae	Syntrichia ruralis		1
Asteraceae	Taraxacum khatoonae	Dandelion	1
Asteraceae	Taraxacum	Garden Dandelion	1
Splachnaceae	Tayloria octoblephara	Dung Moss	1
Chenopodiaceae	Tecticornia arbuscula	Shrubby Samphire	1
Chenopodiaceae	Tecticornia indica subsp. bidens	Samphire	1
Chenopodiaceae	Tecticornia indica	Samphire	1
Kallymeniaceae	Thamnophyllis		1
Theaceae	Theaceae		1
Orchidaceae	Thelymitra campanulata	Shirt Orchid	1
Orchidaceae	Thelymitra holmesii	Blue-star Sun-orchid	1
Orchidaceae	Thelymitra paludosa	Plain Sun Orchid	1
Poaceae	Themeda triandra	Kangaroo Grass	1
Malvaceae	Thomasia cognata		1
Malvaceae	Thomasia pauciflora	Few Flowered Thomasia	1
Malvaceae	Thomasia		1
Chenopodiaceae	Threlkeldia diffusa	Coast Bonefruit	1
Thuidiaceae	Thuidiaceae		1
Asparagaceae	Thysanotus dichotomus	Branching Fringe Lily	1
Asparagaceae	Thysanotus tuberosus	Common Fringe-lily	1
Asteraceae	Tolpis barbata	Yellow Hawkweed	1
Pottiaceae	Tortella flavovirens		1
Araliaceae	Trachymene	Wild Parsnip	1
Hemerocallidaceae	Tricoryne		1
Cyperaceae	Tricostularia aphylla	Medusa Sedge	1
Fabaceae	Trifolium arvense var. arvense	Hare's-foot Clover	1
Fabaceae	Trifolium arvense	Haresfoot Clover	1
Fabaceae	Trifolium pratense	Red Clover	1
Juncaginaceae	Triglochin centrocarpa	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin isingiana	Spurred Arrowgrass	1

Juncaginaceae	Triglochin nana	Dwarf Arrowgrass	1
Juncaginaceae	Triglochin	Lilaea	1
Hydatellaceae	Trithuria australis		1
Tropaeolaceae	Tropaeolum majus	Nasturtium	1
Typhaceae	Typha domingensis	Cumbungi	1
Ulvaceae	Ulva compressa	Sea Lettuce	1
Ulvaceae	Ulva intestinalis	Sea Lettuce	1
Ulvaceae	Ulva lactuca	Sea Lettuce	1
	Ulvophyceae		1
Lentibulariaceae	Utricularia inaequalis		1
Lentibulariaceae	Utricularia violacea	Violet Bladderwort	1
Scrophulariaceae	Verbascum virgatum	Twiggy Mullein	1
Verbenaceae	Verbena litoralis	Verbena	1
Verbenaceae	Verbena officinalis	Common Verbena	1
Myrtaceae	Verticordia acerosa var. preissii		1
Myrtaceae	Verticordia densiflora var. densiflora	Compacted Featherflower	1
Myrtaceae	Verticordia densiflora var. pedunculata	Longstalked Featherflower	1
Myrtaceae	Verticordia densiflora	Compacted Featherflower	1
Myrtaceae	Verticordia insignis subsp. insignis		1
Myrtaceae	Verticordia plumosa var. plumosa		1
Myrtaceae	Verticordia	Featherflowers	1
Fabaceae	Vicia benghalensis	Purple Vetch	1
Fabaceae	Vicia hirsuta	Hairy Vetch	1
Menyanthaceae	Villarsia		1
Violaceae	Violaceae	Violet	1
Poaceae	Vulpia fasciculata	Sand Fescue	1
Poaceae	Vulpia myuros f. myuros	Rat's-tail Fescue	1
Asteraceae	Waitzia nitida		1
Convolvulaceae	Wilsonia backhousei	Narrow-leaf Wilsonia	1
Fabaceae	Wisteria		1
Colchicaceae	Wurmbea monantha		1
Colchicaceae	Wurmbea sp. Cranbrook (A.R.Annels 3819)		1
Colchicaceae	Wurmbea tenella	Eight Nancy	1
Colchicaceae	Wurmbea		1
Apiaceae	Xanthosia tasmanica	Southern Xanthosia	1
Asteraceae	Xerochrysum bracteatum	Golden Everlasting	1
Orthotrichaceae	Zygodon intermedius	Common Zygodon	1

Further Links

Geoscience Australia: http://www.ga.gov.au/
Global Biodiversity Information Facility: https://www.gbif.org/
Threatened Species & Ecological Communities: https://www.environment.gov.au/topics/threatened-species-ecological-communities
WWF Ecoregions: https://worldwildlife.org/biomes
Environmental Resources Information Network (ERIN): https://www.environment.gov.au/topics/science-and-research/databases-and-maps/erin
Australian National Fish Expert Distributions: https://collections.ala.org.au/public/show/dr803
Lists of Australian endemic species: http://Intreasures.com/australia.html

Federal

Department of the Environment: https://www.environment.gov.au/

State/Territory

Australian Capital Territory

Environment and Sustainable Development Directorate: https://www.environment.act.gov.au/

New South Wales

Office of Environment and Heritage: http://www.environment.nsw.gov.au/

Northern Territory

Department of Land Resource Management: 'https://www.lrm.nt.gov.au/

Queensland

Department of Environment and Heritage Protection: https://www.ehp.qld.gov.au/

South Australia

Department of Environment, Water and Natural Resources: 'https://www.environment.sa.gov.au/Home

Tasmania

Department of Primary Industries, Parks, Water and Environment: http://www.dpiw.tas.gov.au/

Western Australia

Department of Parks and Wildlife: https://www.dpaw.wa.gov.au/

Victoria

Department of Environment and Primary Industries: http://www.depi.vic.gov.au/

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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. Please see the caveat for interpretation of information provided here.

Report created: 21-Jun-2024

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	79
Listed Migratory Species:	46

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	11
Commonwealth Heritage Places:	None
Listed Marine Species:	69
Whales and Other Cetaceans:	13
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	6
Regional Forest Agreements:	1
Nationally Important Wetlands:	None
EPBC Act Referrals:	49
Key Ecological Features (Marine):	None
Biologically Important Areas:	7
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area	In feature area
Clay Pans of the Swan Coastal Plain	Critically Endangered	Community likely to occur within area	In buffer area only
Empodisma peatlands of southwestern Australia	Endangered	Community may occur within area	In feature area
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Endangered	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Phaethon rubricauda westralis Red-tailed Tropicbird (Indian Ocean), Indian Ocean Red-tailed Tropicbird [91824]	Endangered	Species or species habitat may occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In buffer area only
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche cauta](#)			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche impavida](#)			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche melanophris](#)			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#)			
White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Tringa nebularia](#)			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area
[Zanda baudinii listed as Calyptorhynchus baudinii](#)			
Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Breeding known to occur within area	In feature area
[Zanda latirostris listed as Calyptorhynchus latirostris](#)			
Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Species or species habitat known to occur within area	In feature area
CRUSTACEAN			
[Engaewa pseudoreducta](#)			
Margaret River Burrowing Crayfish [82674]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
FISH			
[Nannatherina balstoni](#)			
Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thunnus maccoyii](#)			
Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat known to occur within area	In buffer area only
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Myrmecobius fasciatus Numbat [294]	Endangered	Species or species habitat may occur within area	In buffer area only
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Breeding known to occur within area	In feature area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In feature area
OTHER			
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
PLANT			
Andersonia gracilis Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area	In buffer area only
Austrostipa bronweniae listed as Austrostipa bronwenae [92773]	Endangered	Species or species habitat known to occur within area	In buffer area only
Austrostipa jacobsiana [87809]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Banksia mimica Summer Honeypot [82765]	Endangered	Species or species habitat may occur within area	In feature area
Banksia nivea subsp. uliginosa Swamp Honeypot [82766]	Endangered	Species or species habitat may occur within area	In buffer area only
Banksia squarrosa subsp. argillacea Whicher Range Dryandra [82769]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Brachyscias verecundus Ironstone Brachyscias [81321]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Caladenia hoffmanii Hoffman's Spider-orchid [56719]	Endangered	Species or species habitat may occur within area	In buffer area only
Caladenia huegelii King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat known to occur within area	In feature area
Chamelaucium sp. S coastal plain (R.D.Royce 4872) Royce's Waxflower [87814]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diuris purdiei Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area	In feature area
Drakaea elastica Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Gastrolobium papilio Butterfly-leaved Gastrolobium [78415]	Endangered	Species or species habitat may occur within area	In buffer area only
Lambertia echinata subsp. occidentalis Western Prickly Honeysuckle [64528]	Endangered	Species or species habitat may occur within area	In buffer area only
Morelotia australiensis listed as Tetraria australiensis Southern Tetraria [92784]	Vulnerable	Species or species habitat may occur within area	In feature area
Petrophile latericola Laterite Petrophile [64532]	Endangered	Species or species habitat may occur within area	In buffer area only
Synaphea sp. Fairbridge Farm (D.Papenfus 696) Selena's Synaphea [82881]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Synaphea sp. Pinjarra Plain (A.S.George 17182) [86878]	Endangered	Species or species habitat known to occur within area	In buffer area only
Synaphea sp. Serpentine (G.R.Brand 103) [86879]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Synaphea stenoloba Dwellingup Synaphea [66311]	Endangered	Species or species habitat known to occur within area	In buffer area only
Verticordia densiflora var. pedunculata Long-stalked Featherflower [55689]	Endangered	Species or species habitat known to occur within area	In buffer area only
REPTILE			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
SHARK			
Carcharias taurus (west coast population)			
Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Carcharodon carcharias			
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Galeorhinus galeus			
School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only
Pristis pristis			
Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
Rhincodon typus			
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini			
Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Onychoprion anaethetus](#) Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche carteri](#) Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
[Thalassarche cauta](#) Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche impavida](#) Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Thalassarche melanophris](#) Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Marine Species			
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Caperea marginata](#) Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Congregation or aggregation known to occur within area	In buffer area only
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
[Pristis pristis](#) Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
[Rhincodon typus](#) Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Terrestrial Species			
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris canutus](#) Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Charadrius leschenaultii](#) Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Limosa lapponica](#) Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Numenius madagascariensis			
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Pandion haliaetus			
Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

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

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - BUNBURY TRAINING DEPOT [50142]	WA	In buffer area only
Unknown		
Commonwealth Land - [50435]	WA	In buffer area only
Commonwealth Land - [50411]	WA	In buffer area only
Commonwealth Land - [51108]	WA	In buffer area only
Commonwealth Land - [51107]	WA	In buffer area only
Commonwealth Land - [50399]	WA	In buffer area only
Commonwealth Land - [50607]	WA	In buffer area only
Commonwealth Land - [50406]	WA	In buffer area only
Commonwealth Land - [50400]	WA	In buffer area only
Commonwealth Land - [50407]	WA	In buffer area only
Commonwealth Land - [50403]	WA	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua			
Brown Skua [85039]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri			
Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta			
Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida			
Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris			
Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi			
White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thinornis cucullatus as Thinornis rubricollis			
Hooded Plover, Hooded Dotterel [87735]		Species or species habitat may occur within area overfly marine area	In buffer area only
Tringa nebularia			
Common Greenshank, Greenshank [832]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Fish			
Acentronura australe			
Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Campichthys galei](#) Gale's Pipefish [66191]		Species or species habitat may occur within area	In buffer area only
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only
[Hippocampus angustus](#) Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area	In buffer area only
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only
[Hippocampus subelongatus](#) West Australian Seahorse [66722]		Species or species habitat may occur within area	In buffer area only
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only
[Lissocampus caudalis](#) Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only
[Lissocampus fatiloquus](#) Prophet's Pipefish [66250]		Species or species habitat may occur within area	In buffer area only
[Lissocampus runa](#) Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
[Maroubra perserrata](#) Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
[Mitotichthys meraculus](#) Western Crested Pipefish [66259]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In buffer area only
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In buffer area only
Mammal			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Arctocephalus forsteri			
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata			
Minke Whale [33]		Species or species habitat may occur within area	In buffer area only
Balaenoptera edeni			
Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus			
Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Caperea marginata			
Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Congregation or aggregation known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
NTWA Bushland covenant (0022)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0107)	Conservation Covenant	WA	In buffer area only
Tuart Forest	National Park	WA	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Unnamed WA40552	5(1)(h) Reserve	WA	In buffer area only
Unnamed WA49857	Nature Reserve	WA	In buffer area only
Unnamed WA53600	Nature Reserve	WA	In buffer area only

Regional Forest Agreements [Resource Information]

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

RFA Name	State	Buffer Status
South West WA RFA	Western Australia	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Lillydale Road Widening	2023/09476		Completed	In buffer area only
Residential development, Dalyellup, WA	2023/09550		Assessment	In buffer area only
VV Walsh Cold Stores Expansion	2021/8902		Post-Approval	In buffer area only
Controlled action				
313-316 Mimminup Road, Dalyellup	2012/6274	Controlled Action	Post-Approval	In buffer area only
Bunbury Outer Ring Road Northern and Central Section Project, WA	2019/8471	Controlled Action	Post-Approval	In buffer area only
Bunbury Outer Ring Road Southern Section	2012/6652	Controlled Action	Completed	In buffer area only
Bunbury Outer Ring Road Southern Section project, WA	2019/8543	Controlled Action	Final PD	In buffer area only
Clearing for Bunbury Airport Expansion, WA	2013/6872	Controlled Action	Post-Approval	In buffer area only
Construction of new sporting field	2007/3333	Controlled Action	Post-Approval	In buffer area only
Dalyellup Beach Estate - Residential Development	2007/3361	Controlled Action	Post-Approval	In buffer area only
Koppers Wood Products Wood Processing Facility	2012/6691	Controlled Action	Post-Approval	In buffer area only
Mining of titaninum mineral sands from four deposits located on	2004/1628	Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
both private la				
Mining of titanium mineral sands in Happy Valley north and south, on private ...	2006/2597	Controlled Action	Completed	In buffer area only
Preston Industrial Park	2012/6312	Controlled Action	Completed	In buffer area only
Remove 1.87ha of degraded parkland cleared vegetation to utilising the area for	2010/5661	Controlled Action	Post-Approval	In buffer area only
Residential development, College Grove, WA	2015/7579	Controlled Action	Completed	In buffer area only
Sand and limestone extraction	2003/1284	Controlled Action	Completed	In buffer area only
Sand and Limestone Extraction on Lots 313 and 314, Harewoods Road	2005/2291	Controlled Action	Completed	In buffer area only
Sand Extraction Project, Lot 1 Southwest Highway, Boyanup, WA	2015/7449	Controlled Action	Assessment Approach	In buffer area only
Sand mine	2008/4114	Controlled Action	Completed	In buffer area only
Somerville Drive Extension	2011/6153	Controlled Action	Post-Approval	In buffer area only
Stage 2 of the Bunbury Port Access Project	2010/5768	Controlled Action	Post-Approval	In buffer area only
Urban development subdivision	2013/6955	Controlled Action	Post-Approval	In buffer area only
Yarragadee Water Supply Development	2005/2073	Controlled Action	Completed	In feature area
Not controlled action				
Bunbury Water Resources Recovery Scheme-Recycled Water Treatment Plant	2021/8986	Not Controlled Action	Completed	In buffer area only
Clearing 5.4ha of native vegetation for sand extraction	2012/6592	Not Controlled Action	Completed	In buffer area only
Extension of Brittain Road to connect with the South Western Hwy/Robertson Drive intersection	2007/3707	Not Controlled Action	Completed	In buffer area only
Extension of commercial sand extraction operation, Shire of Capel WA	2003/1250	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
New automotive centre at the Southwest Institute of Technology, Bunbury, WA	2010/5766	Not Controlled Action	Completed	In buffer area only
Proposal to widen Harris Road within the Shire of Dardanup, WA	2013/6934	Not Controlled Action	Completed	In buffer area only
Proposed Fuel Reduction Burn, Loughton Park, Bunbury, WA	2014/7148	Not Controlled Action	Completed	In buffer area only
Residential development, Lot 54 Vittoria Road, Glen Iris, WA	2018/8308	Not Controlled Action	Completed	In buffer area only
Residential development, Lots 120-121 Minninup Road, Dalyellup WA	2018/8254	Not Controlled Action	Completed	In buffer area only
Residential Development - Assorted Lots Parade Rd, Washington Av & Bussell Hwy, Usher WA	2013/6935	Not Controlled Action	Completed	In buffer area only
Residential Subdivision on Lot 5 Garvey Road, Crooked Brook	2012/6690	Not Controlled Action	Completed	In buffer area only
Sand Extraction, Lot 265 Ducane Road, Gelorup, WA	2012/6616	Not Controlled Action	Completed	In buffer area only
Vegetation clearing for industrial development	2013/6960	Not Controlled Action	Completed	In buffer area only
Woodcrest Rise Estate Residential Development	2007/3794	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
Dalyellup Beach Estate Stages 12 and 14, near Bunbury	2004/1726	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Dalyellup Beach Estate - Stages 13 and 16	2006/3075	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
Sand and Limestone Extraction on Lots 313 and 314, Harewoods Road	2005/2346	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Stratham Park Estate Subdivision - Lots 70, 11 and 12	2008/4068	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Titanium mineral sands from M70/895 and M70/899	2005/2031	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Waterloo to Busselton 132kV Transmission Line	2002/816	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
Bunbury Water Resource Recovery Scheme - Stage 2 Pipeline	2022/9145	Referral Decision	Referral Publication	In buffer area only
Bunbury WRRS - Stage 2 Pipeline	2021/9092	Referral Decision	Completed	In buffer area only

Biologically Important Areas			[Resource Information]
Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging (in high numbers)	Known to occur	In buffer area only
Eudyptula minor Little Penguin [1085]	Foraging (provisioning young)	Known to occur	In buffer area only
Onychoprion anaethetus Bridled Tern [82845]	Foraging (in high numbers)	Known to occur	In buffer area only
Puffinus assimilis tunneyi Little Shearwater [59363]	Foraging (in high numbers)	Known to occur	In buffer area only
Sternula nereis Fairy Tern [82949]	Foraging (in high numbers)	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Whales			
Balaenoptera musculus brevicauda			
Pygmy Blue Whale [81317]	Migration	Known to occur	In buffer area only
Megaptera novaeangliae			
Humpback Whale [38]	Migration (south)	Known to occur	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

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

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

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

Please feel free to provide feedback via the Contact us page.

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Appendix 9. Pre and post survey likelihood of occurrence table.

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
1	*Carex tereticaulis*	P1	Sep-Oct	Monoecious, rhizomatous, tufted perennial, grass-like or herb (sedge), 0.7 m high. Fl. brown. Black peaty sand.	Unlikely	Unlikely (U1)
2	*Dillwynia* sp. Capel (P.A. Jurjevich 1771)	P1	Sep-Oct	Erect, open, spreading shrub, to 2 m high. Fl. yellow, orange, red, pink. Littered grey loamy sand, rocky soils. Valleys,	Unlikely	Unlikely (U1)
3	*Stylidium perplexum*	P1	Dec	Cushion like plant to 20 cm tall with scapes extending higher, flowers white.	Unlikely	Unlikely (U1)
4	*Synaphea odocoileops*	P1	Aug-Oct	Tufted, compact shrub, 0.2–0.5 m high. Fl. yellow. Brown-orange loam & sandy clay, granite. Swamps, winter-wet areas.	Unlikely	Unlikely (U1)
5	*Gastrolobium whicherense*	P2	Oct	Slender, open shrub, to 1.6 m high. Fl. orange/yellow/red. Red-grey sandy clay over quartzite. Steep westerly slopes.	Unlikely	Unlikely (U1)
6	*Leptomeria furtiva*	P2	Jan, Aug-Oct	Lax, sprawling shrub, 0.2–0.45 m high. Fl. orange, brown. Grey or black peaty sand. Winter-wet flats.	Unlikely	Unlikely (U1)
7	*Leucopogon* sp. Busselton (D. Cooper 243)	P2	Aug-Sep	Slender, erect shrub to 70 cm; flowers white. *Pericalymma ellipticum* wet shrubland, Marri-Jarrah woodland.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
8	*Pterostylis frenchii*	P2	Nov-Dec	Tuberous, herb, to 0.35 m high, with rosette leaves. Fl. white. Calcareous sand with limestone, laterite. Flatlands and gentle slopes.	Unlikely	Unlikely (U1)
9	*Schoenus loliaceus*	P2	Aug-Nov	Annual, grass-like or herb (sedge), 0.03–0.06 m high. Sandy soils. Winter-wet depressions.	Unlikely	Unlikely (U1)
10	*Synaphea petiolaris* subsp. *simplex*	P2	Sep-Oct	Tufted shrub, 0.1–0.6 m high. Fl. yellow. Sandy soils. Flats, winter-wet areas.	Unlikely	Unlikely (U1)
11	*Thelymitra variegata*	P2	Jun-Sep	Tuberous, perennial, herb, 0.1–0.35 m high. Fl. orange, red, purple, pink. Sandy clay, sand, laterite.	Unlikely	Unlikely (U1)
12	*Adelphacme minima*	P3	Oct-Nov	Annual 10-20 cm tall. Leaves sessile Fl. white. Sandy soils, sandy loam swamp situations	Unlikely	Unlikely (U1)
13	*Banksia mimica*	P3	Dec-Feb	Prostrate, lignotuberous shrub, 0.15–0.4 m high. Fl. yellow, brown. White or grey sand over laterite, sandy loam.	Unlikely	Unlikely (U1)
14	*Boronia tetragona*	P3	Oct-Dec	Perennial, herb, 0.3–0.7 m high, leaves sessile, entire, with papillate margins, branches quadrangular, sepals ciliate. Fl. pink, red. Black/white sand, laterite, brown sandy loam. Winter-wet flats, swamps, open woodland.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
15	*Caustis* sp. Boyanup (G.S. McCutcheon 1706)	P3	Dec-Jan	Rhizomatous, clumped perennial, grass-like or herb (sedge), 0.7–1 m high. White or grey sand.	Unlikely	Unlikely (U1)
16	*Chamaescilla gibsonii*	P3	Sep	Clumped tuberous, herb. Fl. blue. Clay to sandy clay. Winter-wet flats, shallow water-filled claypans.	Unlikely	Unlikely (U1)
17	*Isopogon formosus* subsp. *dasylepis*	P3	Jun-Dec	Low, bushy or slender, upright, non-lignotuberous shrub, 0.2–2 m high. Fl. pink, purple, red. Sand, sandy clay, gravelly sandy soils over laterite. Often swampy areas.	Unlikely	Unlikely (U1)
18	*Jacksonia gracillima*	P3	Oct-Nov	Decumbent shrub - 20 cm high and 50 cm wide. Flowers standard orange-yellow; eye yellow with red halo; wings/keel red. Seasonally damp shrublands and woodlands, on sandy loams or clay loams	Unlikely	Unlikely (U1)
19	*Lasiopetalum membranaceum*	P3	Sep-Dec	Multi-stemmed shrub, 0.2-1 m high. Fl. pink, blue, purple. Sand over limestone.	Unlikely	Unlikely (U1)
20	*Lomandra whicherensis*	P3	Nov-Dec	Tufted rhizomatous herb 20 cm high x 30 cm wide. Flowers yellow with purple stripe. Jarrah-marri forest, lateritic soils, sandy clay.	Unlikely	Unlikely (U1)
21	*Platysace ramosissima*	P3	Oct-Nov	Perennial, herb, to 0.3 m high. Fl. white, cream. Sandy soils.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
22	*Schoenus benthamii*	P3	Oct-Nov	Tufted perennial, grass-like or herb (sedge), 0.15-0.45 m high. Fl. brown. White, grey sand, sandy clay. Winter-wet flats, swamps.	Unlikely	Unlikely (U1)
23	*Stylidium paludicola*	P3	Oct-Dec	Reed-like perennial, herb, 0.35-1 m high, Leaves tufted, linear or subulate or narrowly oblanceolate, 0.5-4 cm long, 0.5-1.5 mm wide, apex acute, margin entire, glabrous. Scape mostly glabrous, inflorescence axis glandular. Inflorescence racemose. Fl. pink. Peaty sand over clay. Winter wet habitats. Marri and Melaleuca woodland, Melaleuca shrubland.	Unlikely	Unlikely (U1)
24	*Synaphea hians*	P3	Jul-Nov	Prostrate or decumbent shrub, 0.15-0.6 m high, to 1 m wide. Fl. Yellow. Sandy soils. Rises.	Unlikely	Unlikely (U1)
25	*Synaphea polypodioides*	P3	Sep-Oct	Clumped shrub (sun shrub), 0.35-0.4 m high. Light brown loam, red-brown sandy loam, gravelly, brown sandy clay over laterite. In undulating areas.	Unlikely	Unlikely (U1)
x	*Verticordia attenuata*	P3	Dec-May	Shrub, 0.4-1.0 m high. White or grey sand. Winter-wet depressions.	(did not come up in database searches)	Recorded
26	*Wurmbea sp. Cranbrook (A.R. Annels 3819)*	P3	Sep - Oct	Growing in wetter depressions in swamp in silty clay sediments.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
27	*Acacia semitrullata*	P4	May-Oct	Slender, erect, pungent shrub, (0.1-)0.2-0.7(-1.5) m high. Fl. cream, white. White/grey sand, sometimes over laterite, clay. Sandplains, swampy areas.	Likely	Observed
28	*Aponogeton hexatepalus*	P4	Jul-Oct	Rhizomatous or cormous, aquatic perennial, herb, leaves floating. Fl. green, white. Mud. Freshwater: ponds, rivers, claypans.	Unlikely	Unlikely (U1)
29	*Chamelaucium erythrochlorum*	P4	Jul-Oct	Non-lignotuberous shrub, to 2.5 m high. Fl. cream, yellow. Jarrah-marri forest. Loams, sandy clays. Riverbanks, lower slopes, below laterite breakaways.	Unlikely	Unlikely (U1)
30	*Microtis quadrata*	P4	Dec to Jan	Mignonette orchid 0.3 - 0.8 m high. Fl. Yellow green, clay based winter wet flats.	Unlikely	Unlikely (U1)
31	*Ornduffia submersa*	P4	Sep-Oct	Tuberous emergent aquatic perennial dwarf shrub, height to 35 cm; flowers white; leaves floating on surface of water. Clay-based ponds and swamps (semi-aquatic)	Unlikely	Unlikely (U1)
32	*Pultenaea skinneri*	P4	Jul-Sep	Slender shrub, 1-2 m high. Fl. yellow, orange, red. Sandy or clayey soils. Winter-wet depressions.	Unlikely	Unlikely (U1)
33	*Stylidium longitubum*	P4	Oct-Dec	Erect annual (ephemeral), herb, 0.05-0.12 m high. Fl. Pink. Sandy clay, clay. Seasonal wetlands.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
34	*Trithuria australis*	P4	Nov - Dec	Small reddish aquatic herb. Ponds, pools	Unlikely	Unlikely (U1)
35	*Caladenia speciosa*	P4	Sep-Oct	Tuberous, perennial, herb, 0.35-0.6 m high. Fl. white, pink. White, grey or black sand.	Possible	Unlikely (U2)
36	*Acacia flagelliformis*	P4	May-Sep	Rush-like, erect or sprawling shrub, 0.3-0.75(-1.6) m high. Fl. yellow. Sandy soils. Winter-wet areas.	Possible	Unlikely (U3)
37	*Franklandia triaristata*	P4	Aug-Oct	Erect, lignotuberous shrub, 0.2-1 m high. Fl. white, cream, yellow , brown, purple. White or grey sand.	Possible	Unlikely (U3)
38	*Morelotia australiensis*	T (VU)	Nov-Dec	Rhizomatous, tufted perennial, grass-like or herb (sedge), to 1 m high. Fl. brown. Sandy soils associated with heavy soils on the Pinjarra Plain.	Unlikely	Unlikely (U1)
39	*Austrostipa jacobsiana*	T (CR)	Oct-Nov	Perennial rhizomatous grass to 1.2 metres tall (with flower spikes). Leaves to 45 cm long, folded and swollen giving a terete appearance, abaxial surface strongly ribbed. Inflorescence 10-20 cm long. Flowering in October through November.Low-lying areas on the fringe of a seasonally wet depressions on calcareous clay to fine sandy clay.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
40	*Brachyscias verecundus*	T (CR)	Nov to early December	Annual (or ephemeral), herb, 0.012-0.022 m high, entirely glabrous. Fl. white/cream. Recorded in winter-wet clay over ironstone in open to tall shrubland, other occurrence in moss sward in granite outcrop in Shannon River National Park has been officially disregarded, according the EPBC Act conservation advice (2006) for this species .	Unlikely	Unlikely (U1)
41	*Caladenia huegelii*	T (CR)	Sep-Oct	Tuberous, perennial, herb, 0.25-0.6 m high. Fl. green, cream, red. Grey or brown sand, clay loam. (Jarrah banksia woodland usually associated with the Bassendean sand-dune system, rarely in the Spearwood system).	Unlikely	Unlikely (U1)
42	*Drakaea elastica*	T (CR)	Oct-Nov	Tuberous, perennial, herb, 0.12-0.3 m high. Fl. red, green, yellow. White or grey sand. Low-lying situations adjoining winter-wet swamps.	Unlikely	Unlikely (U1)
43	*Synaphea* sp. Fairbridge Farm (D. Papenfus 696)	T (CR)	Oct	Dense, clumped shrub, to 0.3 m high, to 0.4 m wide. Fl. Yellow. Sandy with lateritic pebbles. Near winter-wet flats, in low woodland with weedy grasses.	Unlikely	Unlikely (U1)
44	Synaphea sp. Pinjarra (R. Davis 6578)	T (CR)	Sep - Oct	Compact shrub, to 0.5 m high, to 0.7 m wide. Leaves hairless, blue-green, 3 lobed to irregularly lobed. Spike extend beyond	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
				leaves, fairly crowded flowers Fl. yellow. Grey clayey sand. Swamp habitat.		
45	*Synaphea* sp. Serpentine	T (CR)	Sep-Oct	Perennial, Plants clumped 0.6 m high to 0.5 m wide. Leaves 2-4 x tripartite, terminal lobes linear. Spikes long, undulating, infused with red. Fl. Yellow. Predominantly on flat terrain on grey-brown sandy loams to clay in seasonally wet areas.	Unlikely	Unlikely (U1)
46	*Drakaea micrantha*	T (EN)	Sep-Oct	Tuberous, perennial, dwarf hammer orchid, 0.15–0.3 m high. Fl. red, yellow. Small heart shaped leaf with green veins. White-grey infertile sand in *Eucalyptus marginata, Allocasuarina fraseriana* woodland or forest. Often under *Kunzea ericifolia, K. glabrescens* with *Paracaleana nigrita* and other Drakaea species.	Possible	Unlikely (U1)
47	*Austrostipa bronwenae*	T (EN)	Sep-Oct	Perennial grass, 0.6 m high x 0.3 m wide. Flowers green. Grows in calcareous, winter-wet grey-brown sandy-loam or dark brown loam over clay.	Unlikely	Unlikely (U1)
48	*Banksia nivea* subsp. *uliginosa*	T (EN)	July-Sep	Dense, erect, non-lignotuberous shrub, 0.2–1.5 m high. Fl. yellow, brown. Sandy clay, gravel.(red, sandy, shallow loams over ironstone in thick scrub, in	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
				winter wet southern and Scott ironstones.)		
49	*Caladenia hoffmanii*	T (EN)	Aug-Oct	Tuberous, perennial, herb, 0.13-0.3 m high. Fl. green & yellow & red. Clay, loam, laterite, granite. Rocky outcrops and hillsides, ridges, swamps and gullies.	Unlikely	Unlikely (U1)
50	*Darwinia whicherensis*	T (EN)	Oct-Nov	Erect low shrub to 30 cm, flowers green, outer red. Winter-wet area of shrubland over shallow red clay over ironstone	Unlikely	Unlikely (U1)
51	*Diuris drummondii*	T (EN)	Nov-Jan	Tuberous, perennial, herb, 0.5-1.05 m high. Fl. yellow. Low-lying depressions, swamps.	Unlikely	Unlikely (U1)
52	*Diuris purdiei*	T (EN)	Sep-Oct	Tuberous, perennial, herb, 0.15-0.35 m high. Fl. yellow. Grey-black sand, moist. Winter-wet swamps. Found between Perth and Yarloop.	Unlikely	Unlikely (U1)
53	*Gastrolobium papilio*	T (EN)	Oct-Dec	Tangled, clumped shrub, to 1.5 m high. Fl. cream-red. Sandy clay over ironstone and laterite. Flat plains.	Unlikely	Unlikely (U1)
54	*Lambertia echinata* subsp. *occidentalis*	T (EN)	Feb/May-Jun/Oct	Prickly, much-branched, non-lignotuberous shrub, to 3 m high. Fl. yellow. White sandy soils over laterite, orange/brown-red clay over ironstone.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
55	*Petrophile latericola*	T (EN)	Nov	Multi-stemmed shrub, 0.4-1.5 m high. Fl. yellow. Red lateritic clay. Winter-wet flats.	Unlikely	Unlikely (U1)
56	Synaphea sp. Pinjarra Plain (A.S. George 17182)	T (EN)	Sep to Nov	Erect, clumped shrub (sub-shrub), to 0.8 m high. Fl. yellow. Grey sandy loam or clay, grey-brown clayey sand, brown clayey loam, laterite. Flats, seasonally wet areas, railroad reserves often with wet depressions or drains.	Unlikely	Unlikely (U1)
57	*Synaphea stenoloba*	T (EN)	Aug-Oct	Caespitose shrub, 0.3–0.45 m high. Fl. Yellow. Sandy or sandy clay soils. Winter-wet flats, granite. Shrublands and woodlands on loamy soils.	Unlikely	Unlikely (U1)
58	*Verticordia densiflora* var. *pedunculata*	T (EN)	Dec-Jan	Erect to spreading shrub, 0.3-0.6 m high. Fl. pink/pink-white. Grey/yellow sand, sandy loam. Winter-wet low-lying areas.	Unlikely	Unlikely (U1)
59	*Andersonia gracilis*	T (VU)	Sep-Nov	Slender erect or open straggly shrub, 0.1-0.5(-1) m high. Fl. white-pink-purple. White/grey sand, sandy clay, gravelly loam. Winter-wet areas, near swamps.	Unlikely	Unlikely (U1)
60	*Banksia squarrosa* subsp. *argillacea*	T (VU)	Jun-Nov	Erect, open, non-lignotuberous shrub, 1.2–4 m high. Fl. yellow, Jun–Nov. White/grey sand, gravelly clay or loam. Winter-wet flats, clay flats.	Unlikely	Unlikely (U1)

#	SPECIES	STATE STATUS	FLOWERING	DESCRIPTION AND HABITAT	PRE-SURVEY LIKELIHOOD	POST SURVEY LIKELIHOOD
61	*Chamelaucium roycei*	T (VU)	Oct-Dec	Winter-wet areas, loams and ironstone.	Unlikely	Unlikely (U1)
62	*Diuris micrantha*	T (VU)	Sep-Oct	Tuberous, perennial, herb, 0.3–0.6 m high. Fl. yellow, brown. Brown loamy clay. Winter-wet swamps, in shallow water.	Unlikely	Unlikely (U1)
63	*Eleocharis keigheryi*	T (VU)	Aug-Nov	Rhizomatous, clumped perennial, grass-like or herb (sedge), to 0.4 m high. Fl. green. Clay, sandy loam. Emergent in freshwater: creeks, claypans	Unlikely	Unlikely (U1)

Appendix 10. List of vascular flora found within the survey area.

#	FAMILY_NAME	TAXON	NATURALISED	CONSV_CODE
1	Anarthriaceae	*Anarthria prolifera*		
2	Anarthriaceae	*Lyginia imberbis*		
3	Apiaceae	*Platysace filiformis*		
4	Apiaceae	*Xanthosia huegelii*		
5	Apocynaceae	*Gomphocarpus fruticosus*	*	
6	Araliaceae	*Trachymene pilosa*		
7	Asparagaceae	*Lomandra caespitosa*		
8	Asparagaceae	*Lomandra hermaphrodita*		
9	Asparagaceae	*Lomandra nigricans*		
10	Asparagaceae	*Lomandra sericea*		
11	Asparagaceae	*Lomandra sonderi*		
12	Asparagaceae	*Thysanotus manglesianus*		
13	Asteraceae	*Arctotheca calendula*	*	
14	Asteraceae	*Cotula turbinata*	*	
15	Asteraceae	*Hypochaeris glabra*	*	
16	Asteraceae	*Hypochaeris radicata*	*	
17	Asteraceae	*Lagenophora huegelii*		
18	Asteraceae	*Quinetia urvillei*		
19	Asteraceae	*Sonchus oleraceus*	*	
20	Asteraceae	*Ursinia anthemoides*	*	
21	Casuarinaceae	*Allocasuarina humilis*		
22	Colchicaceae	*Burchardia congesta*		
23	Crassulaceae	*Crassula colorata*		
24	Cyperaceae	*Cyathochaeta avenacea*		
25	Cyperaceae	*Ficinia marginata*	*	
26	Cyperaceae	*Lepidosperma squamatum*		
27	Cyperaceae	*Mesomelaena tetragona*		
28	Dasypogonaceae	*Dasypogon bromeliifolius*		
29	Dilleniaceae	*Hibbertia cuneiformis*		
30	Dilleniaceae	*Hibbertia hypericoides*		
31	Dilleniaceae	*Hibbertia racemosa*		
32	Dilleniaceae	*Hibbertia vaginata*		
33	Droseraceae	*Drosera erythrorhiza*		
34	Droseraceae	*Drosera pallida*		
35	Droseraceae	*Drosera zonaria*		
36	Ericaceae	*Conostephium pendulum*		
37	Ericaceae	*Lysinema ciliatum*		
38	Ericaceae	*Styphelia conostephioides*		
39	Ericaceae	*Styphelia racemulosa*		
40	Fabaceae	*Acacia alata*		
41	Fabaceae	*Acacia huegelii*		
42	Fabaceae	*Acacia iteaphylla*	*	
43	Fabaceae	*Acacia pulchella* var. *glaberrima*		
44	Fabaceae	*Bossiaea eriocarpa*		

#	FAMILY_NAME	TAXON	NATURALISED	CONSV_CODE
45	Fabaceae	*Daviesia divaricata*		
46	Fabaceae	*Daviesia physodes*		
47	Fabaceae	*Gompholobium scabrum*		
48	Fabaceae	*Gompholobium tomentosum*		
49	Fabaceae	*Hardenbergia comptoniana*		
50	Fabaceae	*Hovea trisperma*		
51	Fabaceae	*Jacksonia horrida*		
52	Fabaceae	*Kennedia coccinea*		
53	Fabaceae	*Kennedia prostrata*		
54	Fabaceae	*Lupinus angustifolius*	*	
55	Fabaceae	*Trifolium repens*	*	
56	Geraniaceae	*Erodium botrys*	*	
57	Geraniaceae	*Erodium cicutarium*	*	
58	Goodeniaceae	*Dampiera linearis*		
59	Goodeniaceae	*Scaevola calliptera*		
60	Haemodoraceae	*Anigozanthos manglesii*		
61	Haemodoraceae	*Conostylis aculeata* subsp. *preissii*		
62	Haemodoraceae	*Haemodorum spicatum*		
63	Haemodoraceae	*Phlebocarya ciliata*		
64	Hemerocallidaceae	*Chamaescilla versicolor*		
65	Iridaceae	*Patersonia occidentalis*		
66	Iridaceae	*Romulea rosea*	*	
67	Iridaceae	*Watsonia meriana*	*	
68	Loranthaceae	*Nuytsia floribunda*		
69	Myrtaceae	*Agonis flexuosa*		
70	Myrtaceae	*Calytrix flavescens?*		
71	Myrtaceae	*Calytrix fraseri*		
72	Myrtaceae	*Corymbia calophylla*		
73	Myrtaceae	*Eremaea asterocarpa*		
74	Myrtaceae	*Eucalyptus globulus*	*	
75	Myrtaceae	*Eucalyptus marginata*		
76	Myrtaceae	*Hypocalymma robustum*		
77	Myrtaceae	*Kunzea glabrescens*		
78	Myrtaceae	*Melaleuca preissiana*		
79	Myrtaceae	*Melaleuca thymoides*		
80	Myrtaceae	*Verticordia attenuata*		P3
81	Orchidaceae	*Caladenia flava*		
82	Orchidaceae	*Caladenia longicauda*		
83	Orchidaceae	*Caladenia reptans*		
84	Orchidaceae	*Cyrtostylis* sp		
85	Orchidaceae	*Diuris* sp. photo 1274		
86	Orchidaceae	*Eriochilus dilatatus*		
87	Orchidaceae	*Leporella fimbriata*		
88	Orchidaceae	*Pterostylis vittata*		
89	Orchidaceae	*Pterostylis* sp. Bloated snail orchid (W. Jackson BJ 486)		
90	Orchidaceae	*Pyrorchis nigricans*		

#	FAMILY_NAME	TAXON	NATURALISED	CONSV_CODE
91	Phytolaccaceae	*Phytolacca octandra*	*	
92	Poaceae	*Briza maxima*	*	
93	Poaceae	*Ehrharta longiflora*	*	
94	Poaceae	*Vulpia bromoides*	*	
95	Polygonaceae	*Rumex acetosella*	*	
96	Proteaceae	*Adenanthos meisneri*		
97	Proteaceae	*Banksia attenuata*		
98	Proteaceae	*Banksia grandis*		
99	Proteaceae	*Banksia ilicifolia*		
100	Proteaceae	*Hakea lissocarpha*		
101	Proteaceae	*Hakea ruscifolia*		
102	Proteaceae	*Persoonia longifolia*		
103	Proteaceae	*Petrophile linearis*		
104	Proteaceae	*Stirlingia latifolia*		
105	Proteaceae	*Xylomelum occidentale*		
106	Restionaceae	*Desmocladus fasciculatus*		
107	Restionaceae	*Hypolaena exsulca*		
108	Rhamnaceae	*Spyridium globulosum*		
19	Rubiaceae	*Galium murale*	*	
110	Stylidiaceae	*Stylidium brunonianum*		
111	Stylidiaceae	*Stylidium repens*		
112	Xanthorrhoeaceae	*Xanthorrhoea brunonis*		
114	Zamiaceae	*Macrozamia riedlei*		

Appendix 11. DBCA Threatened flora reporting forms.

Department of Biodiversity, Conservation and Attractions

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: Acacia semitrullata **TPFL Pop. No:** 19

OBSERVATION DATE: 21/06/2024 **CONSERVATION STATUS:** P4 New population ☒

OBSERVER/S: Russell Smith & Colin Spencer **PHONE:** 0447809124

ROLE: botanist **ORGANISATION:** Ecoedge

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

Lot 1 Hair Place, Gelorup, south east of Bunbury

Reserve No:

DBCA DISTRICT: **LGA:** Capel Land manager present: ☐

DATUM: GDA94 / MGA94 ☒ AGD84 / AMG84 ☐ WGS84 ☐ Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required) DecDegrees ☒ DegMinSec ☐ UTMs ☐

Lat / Northing: 33.4356

Long / Easting: 115.6713

ZONE: 50

METHOD USED: GPS ☒ Differential GPS ☐ Map ☐

No. satellites: ____ Map used: _____

Boundary polygon captured: ☐ Map scale: _____

LAND TENURE:

Nature reserve ☐ Timber reserve ☐ Private property ☒ Rail reserve ☐ Shire road reserve ☐

National park ☐ State forest ☐ Pastoral lease ☐ MRWA road reserve ☐ Other Crown reserve ☐

Conservation park ☐ Water reserve ☐ UCL ☐ SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): _____

EFFORT: Time spent surveying (minutes): _____ 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	3			3
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 ☐ Dehisced fruit ☐ Percentage in flower: _____%

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

COMMENT:

THREATS - type, agent and supporting information: 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+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
• Firebreak maintenance	N	H	M
•			
•			

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** ❑

Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☒
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☒
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☒
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☒
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☒
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

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, Eucalyptus 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.)

DRF PERMIT/ LICENCE No: Note if only observing plants (i.e. no specimens or plant matieral is taken) then no permit/licence is required. For further information on permit and licening 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: Russell Smith Role: botanist Signed: _____ Date: 21/06/2024

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** ❑

Department of Biodiversity, Conservation and Attractions

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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: Verticordia attenuata **TPFL Pop. No:** 19

OBSERVATION DATE: 21/06/2024 **CONSERVATION STATUS:** P3 New population ☒

OBSERVER/S: Russell Smith & Colin Spencer **PHONE:** 0447809124

ROLE: botanist **ORGANISATION:** Ecoedge

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

Lot 1 Hair Place, Gelorup, south east of Bunbury

Reserve No:

DBCA DISTRICT: **LGA:** Capel Land manager present: ☐

DATUM:
GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)
DecDegrees ☒ DegMinSec ☐ UTMs ☐

Lat / Northing: 33.4372

Long / Easting: 115.6711

ZONE: 50

METHOD USED:
GPS ☒ Differential GPS ☐ Map ☐

No. satellites: Map used:

Boundary polygon captured: ☐ Map scale:

LAND TENURE:

Nature reserve ☐	Timber reserve ☐	Private property ☒	Rail reserve ☐	Shire road reserve ☐
National park ☐	State forest ☐	Pastoral lease ☐	MRWA road reserve ☐	Other Crown reserve ☐
Conservation park ☐	Water reserve ☐	UCL ☐	SLK/Pole ____ to ____	Specify other:

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²):

EFFORT: Time spent surveying (minutes): 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	8			8
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 ☐ Dehisced fruit ☐ Percentage in flower: %

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

COMMENT:

THREATS - type, agent and supporting information: 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+)	**Current impact (N-E)**	**Potential Impact (L-E)**	**Potential Threat Onset (S-L)**
• Firebreak maintenance	N	H	M
•			
•			

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Department of Biodiversity, Conservation and Attractions

Threatened and Priority Flora Report Form

Version 1.3 August 2017

HABITAT INFORMATION:

LANDFORM:
Crest ☐
Hill ☐
Ridge ☐
Outcrop ☐
Slope ☒
Flat ☐
Open depression ☐
Drainage line ☐
Closed depression ☐
Wetland ☐

ROCK TYPE:
Granite ☐
Dolerite ☐
Laterite ☐
Ironstone ☐
Limestone ☐
Quartz ☐
Specify other: _____

LOOSE ROCK:
(on soil surface; eg gravel, quartz fields)
0-10% ☒
10-30% ☐
30-50% ☐
50-100% ☐

SOIL TYPE:
Sand ☒
Sandy loam ☐
Loam ☐
Clay loam ☐
Light clay ☐
Peat ☐
Specify other: _____

SOIL COLOUR:
Red ☐
Brown ☐
Yellow ☐
White ☐
Grey ☒
Black ☐
Specify other: _____

DRAINAGE:
Well drained ☒
Seasonally inundated ☐
Permanently inundated ☐
Tidal ☐

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, Eucalyptus 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.)

DRF PERMIT/ LICENCE No: Note if only observing plants (i.e. no specimens or plant matieral is taken) then no permit/licence is required. For further information on permit and licening 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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ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐ Other: _____

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

Submitter of Record: Russell Smith Role: botanist Signed: _____ Date: 21/06/2024

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** ❑

Appendix 13. DBCA TEC PEC reporting forms.

Department of Parks and Wildlife

Threatened and Priority Ecological Community (TEC/PEC) Occurrence Report Form

Version 6.0 July 2013

COMMUNITY: 'Banksia Woodlands of the Swan Coastal Plain' **OBSERVATION DATE:** 28/08/2024

New occurrence ☒ **Site ID:** **CONS STATUS:** P3

OBSERVER/S: Russell Smith **PHONE:** 0447809124

ROLE: Botanist **ORGANISATION:** Ecoedge

EMAIL: russell@ecoedge.com.au

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

Lot 1, Hair Place, Gelorup

Reserve No:

DISTRICT: **LGA:** Capel Land manager present: ☐

DATUM:

GDA94 / MGA94 ☒
AGD84 / AMG84 ☐
WGS84 ☐
Unknown ☐

COORDINATES: (If UTM coords provided, **Zone** is also required)

DecDegrees ☒ DegMinSec ☐ UTMs ☐

Lat / Northing: 33.4358
Long / Easting: 115.6691
Zone: 50

METHOD USED:

GPS ☒ Differential GPS ☐ Map ☐

No. satellites: Map used:

Boundary polygon captured: ☒ Map used:

LAND TENURE:

Nature reserve ☐ Timber reserve ☐ Private property ☒ Rail reserve ☐ Shire road reserve ☐
National park ☐ State forest ☐ Pastoral lease ☐ MRWA road reserve ☐ Other Crown reserve ☐
Conservation park ☐ Water reserve ☐ UCL ☐ SLK/Pole _____ to _____ Specify other: _____

AREA ASSESSMENT: Edge survey ☐ Partial survey ☐ Full survey ☒ Area observed (m²): 75,100

EFFORT: Time spent surveying (minutes): _____ No. of minutes spent / 100 m²: _____

THREATS - type, and supporting information: e.g. clearing, too frequent fire, weed, disease. Refer to field manual for list of threats & agents.	**Cause/Agent:** e.g. weed type, grazing species, recreation type	Area affected	Current impact (N-E)	Potential Impact (L-E)	Potential Threat Onset (S-L)
• Understorey slashing for fire hazard reduction		60%	M	M	S
•		%			
•		%			
•		%			
•		%			
•		%			
•		%			
•		%			
•		%			

*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+)**

CONDITION OF OCCURRENCE: (Bush Forever Scale) (estimate % of area in each)

Pristine ☐ _____% Very Good ☒ 20% Degraded ☐ _____%

Excellent ☐ _____% Good ☒ 80% Completely Degraded ☐ _____%

Please return form to:

communities.data@dpaw.wa.gov.au

or Species and Communities Branch, Department of Parks and Wildlife, Locked Bag 104, Bentley Delivery Centre WA 6983

*Record entered by:*_____ *Date entered:*_____ *Database no:*_____

Department of Parks and Wildlife

Threatened and Priority Ecological Community (TEC/PEC) Occurrence Report Form

Version 6.0 July 2013

RECOMMENDED MANAGEMENT ACTIONS: e.g. roadside markers, weed control, etc.

ACTIONS IMPLEMENTED (include date):

HABITAT INFORMATION: (Check more than one box for combinations or where necessary)

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

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

CONDITION OF SOIL:

Dry ☒ Moist ☐ Waterlogged ☐ Inundated ☐ Cracked ☐ Saline ☐ Other:

VEGETATION CLASSIFICATION:	1. Eucalyptus marginata, Corymbia calophylla, Banksia attenuata open forest/woodland
	2. Very open tall shrubland of Kunzea glabrescens
	3. Open low/mid shrubland of Acacia pulchella var. glaberrima, Calytrix fraseri, Dasypogon bromeliifolius, Daviesia divaricata, Hibbertia hypericoides, Macrozamia riedlei, Stirlingia latifolia and Xanthorrhoea
	4.

FIRE HISTORY:

Last Fire: Season/Month: Year: **Fire Intensity:** High ☐ Medium ☐ Low ☐ No evidence of fire ☒

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communities.data@dpaw.wa.gov.au

or Species and Communities Branch, Department of Parks and Wildlife, Locked Bag 104, Bentley Delivery Centre WA 6983

*Record entered by:*_____ *Date entered:*_____ *Database no:*_____

Department of Parks and Wildlife

Threatened and Priority Ecological Community (TEC/PEC) Occurrence Report Form

Version 6.0 July 2013

Actual Occurrence Landuse: Previously livestock grazing

Adjacent Landuse:

Associated Flora Species:

Acacia semitrullata, Verticordia attenuata

Associated Fauna Species:

OTHER COMMENTS:

ATTACHED: Map ☐ Mudmap ☐ Photo ☐ GIS data ☐ Field notes ☐

Other:

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

Submitter of record: **Russell Smith** **Role:** **Botanist**

Please return form to:

communities.data@dpaw.wa.gov.au

or Species and Communities Branch, Department of Parks and Wildlife, Locked Bag 104, Bentley Delivery Centre WA 6983

*Record entered by:*_____ *Date entered:*_____ *Database no:*_____

Threatened and Priority Ecological Community (TEC/PEC) Occurrence Report Form

Signature:	**Date submitted:**	**21/06/2024**

Please return form to:

communities.data@dpaw.wa.gov.au

or Species and Communities Branch, Department of Parks and Wildlife, Locked Bag 104, Bentley Delivery Centre WA 6983

*Record entered by:*_____ *Date entered:*_____ *Database no:*_____

Targeted Fauna Survey

(Lot 1) 34 Hair Place, North Boyanup

Prepared for BCP Group

December 2023

Limitations

Scope of services

This report ("the report") has been prepared by Western Ecological Pty Ltd (WE) in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and WE. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, WE have relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, WE have not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. WE have also not attempted to determine whether any material matter has been omitted from the data. WE will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to WE. The making of any assumption does not imply that WE have made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. WE disclaim responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

Report Version	Revision No.	Purpose	Author/reviewer	Submitted to Client	
				Form	Date
Draft Report	1	For client review	Western Ecological / MBS	Electronic	22/09/2023
Final Report	2	Client submission	Western Ecological / MBS	Electronic	06/12/2023

Executive Summary

Western Ecological understands that there is a proposal to extract sand from 34 (Lot 1) Hair Place, North Boyanup (the survey area). The survey area is approximately 37 ha and is primarily cleared of native vegetation apart from scattered trees and shrubs.

Due to the location of the survey area in the southwest of Western Australia (WA), the project could potentially include habitat for a number of threatened fauna species:

- Baudin's Black Cockatoo (*Zanda baudinii*) listed as Vulnerable under the EPBC Act and BC Act.
- Carnaby's Black Cockatoo (*Zanda latirostris*) listed as Endangered under the EPBC Act and BC Act.
- Forest Red-tailed Black Cockatoo (*Calyptorhynchus banksii naso*) (FRTBC) listed as Vulnerable under the EPBC Act and BC Act.
- Western Ringtail Possum (WRP) (*Pseudocheirus occidentalis)* listed as Critically Endangered under *the EPBC Act and BC Act.*

A targeted fauna survey was therefore undertaken to assess habitat for these species.

The fauna desktop assessment involved searches (with a 30 km buffer) of the Department of Biodiversity, Conservation and Attractions (DBCA) threatened fauna database and *Environment Protection and Biodiversity Conservation P*rotected Matters Search Tool (EPBC PMST), which were undertaken to assess the target conservation significant fauna species potentially occurring in the survey area. Results of the DBCA database and EPBC PMST indicate the presence of the four species in the local area.

The field survey was undertaken on 29th September 2023 by two qualified Zoologists. The field survey consisted of targeted conservation significant fauna assessments in order to define the fauna values of the survey area.

Black Cockatoo Assessment

The survey area is within the known distribution of all three Black Cockatoo species, as can be seen in the Department of Agriculture, Water and the Environment (DAWE) Black Cockatoo distribution maps. During the field survey, no Black Cockatoos were recorded directly, however all three species were recorded through foraging evidence, in the way of chewed Marri nuts (the majority was from FRTBC).

A total of 75 Black Cockatoo potential breeding trees were recorded in the survey area. These consisted of Marri and Jarrah trees with a diameter at breast height (DBH) > 500 mm. No potentially suitable, observable hollows were recorded in any of these trees. There is a total of 3 ha of foraging habitat, which consists of Marri and Jarrah trees (regardless of their DBH), as well as a number of other known foraging species, including *Banksia grandis* and *Banksia attenuata*. The remaining 34 ha was classed as Cleared and offers little value to target fauna species.

Western Ringtail Possum

Suitable habitat for the Western Ringtail Possum was present in the survey area, which consisted of mature trees (Marri and Jarrah) with an understory of Peppermint trees. The survey area therefore contains a total of 3 ha of suitable Western Ringtail Possum habitat consisting of both foraging and potential denning habitat in which the species could build dreys. During the assessment, no Western Ringtail Possum were observed or their scats and no dreys or hollows were recorded.

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1 Introduction

1.1 Background

Western Ecological understands that there is a proposal to extract sand from 34 (Lot 1) Hair Place, North Boyanup (the survey area). The survey area is approximately 37 ha and is primarily cleared of native vegetation apart from scattered trees and shrubs.

Due to the location of the survey area in the southwest of WA, the project could potentially include habitat for a number of threatened fauna species i.e., all three species of Black Cockatoo, Baudin's Black Cockatoo [*Zanda baudinii*], (Carnaby's Black Cockatoo [*Zanda latirostris*] and Forest Red-tailed Black Cockatoo [*Calyptorhynchus banksii naso*]) and the Western Ringtail Possum (*Pseudocheirus occidentalis*).

A targeted fauna survey was therefore undertaken to assess habitat for these species.

1.2 Scope and Objective

The scope of work (SoW) was as follows:

- Targeted Black Cockatoo Habitat Assessment
- Targeted Western Ringtail Possum (WRP) Habitat Assessment
- Document the above in a concise report.

The objectives of the survey were to define the fauna values in the survey area, to support future project planning and inform environmental approvals.

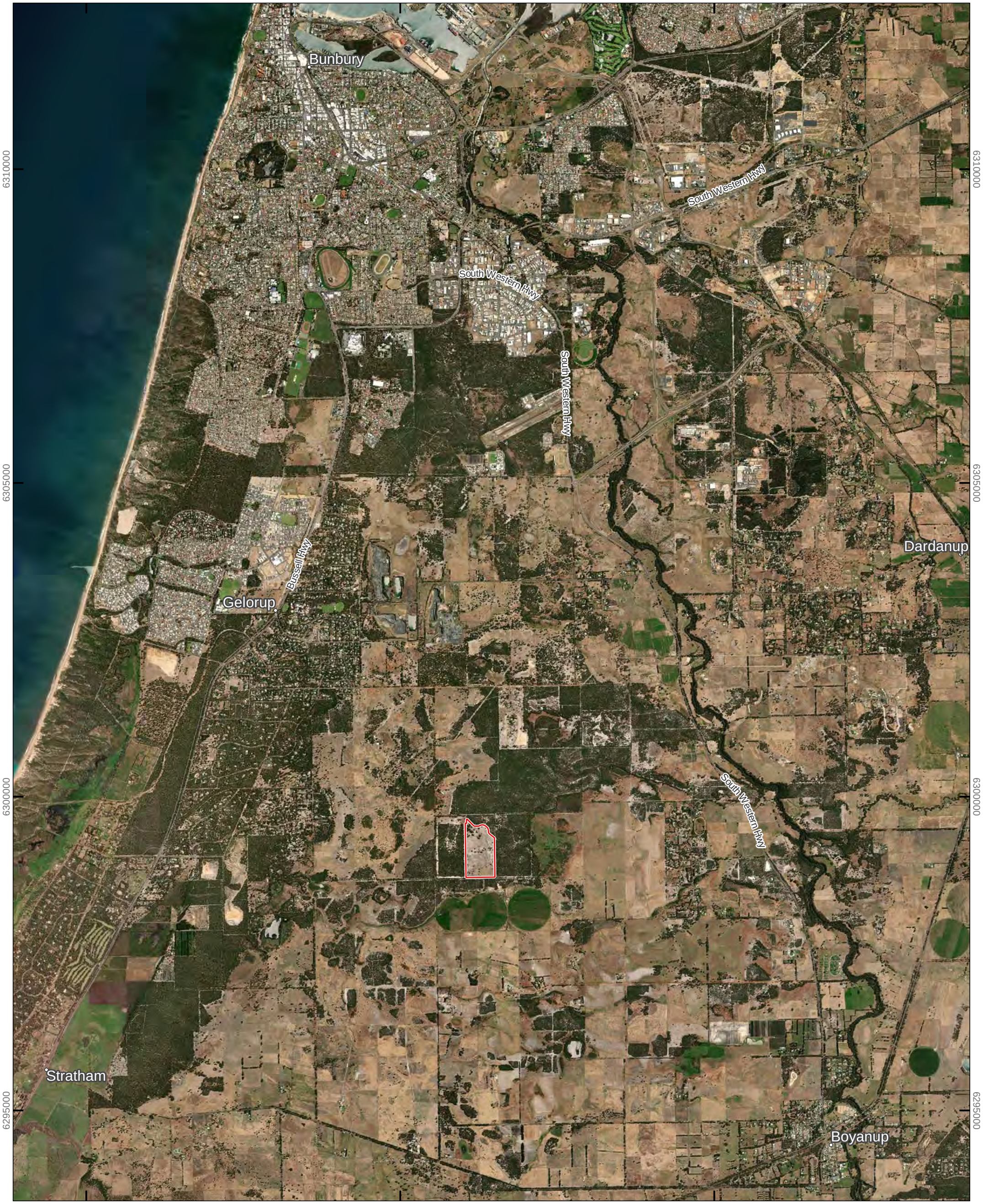

Figure 1: Project Location

0 700 1,400 m

GDA2020 - MGA Zone 50

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Ref: 223_002_RevC.qgz

1.3 Legislative Context

Fauna are protected formally and informally by various legislative and non-legislative measures, which are outlined below:

- Legislative Protection:
    - *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
    - *Western Australia* (WA) *Biodiversity Conservation Act* (2016) (BC Act)
- Non-Legislative Protection:
    - WA Department of Biodiversity, Conservation and Attractions (DBCA) Priority lists.

A short description of each is given below. Other definitions, including species conservation categories, are provided in Appendix 1.

EPBC Act

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) aims to protect matters of national environmental significance, which are detailed in Appendix 1. Under the EPBC Act, the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) lists protected species by criteria set out in the Act. Species are conservation significant if they are listed as Threatened (i.e., Critically Endangered, Endangered and Vulnerable) or Migratory.

Bird species protected as Migratory under the EPBC Act include those listed under international migratory bird agreements relating to the protection of birds, which migrate between Australia and other countries, for which Australia has agreed. This includes the Japan-Australia Migratory Bird Agreement (JAMBA), the China-Australia Migratory Bird Agreement (CAMBA), the Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA) and the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention).

Some marine fauna or terrestrial fauna that use marine habitats are listed as Marine under the EPBC Act. These species are only considered conservation significant when a proposed development occurs in a Commonwealth marine area (i.e., any Commonwealth Waters or Commonwealth Marine Protected Area). Outside of such areas, the EPBC Act does not consider these species to be matters of national environmental significance, so are not protected under the Act.

BC Act

The *Biodiversity Conservation Act 2016* (BC Act) replaced both the *Wildlife Conservation Act 1950* and the *Sandalwood Act 1929*. The aim of the Act is to conserve and protect biodiversity and to promote the ecologically sustainable use of biodiversity components in WA.

Taxa are listed as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1a, 1b, and 1c), or is a rediscovered species to be regarded as threatened species under section 26(2) of the BC Act. Other categories include extinct or extinct in the wild and they are listed under section 23 (1) of the BC Act (Appendix 1).

If species meet one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection, they are covered under section 13(1) of the BC Act and are called specially protected species. Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act can't also be listed as Specially Protected species (see Appendix 1 for a more detailed description of each threat category).

DBCA Priority Species

DBCA lists species that are possibly threatened but that do not meet criteria for listing under the BC Act, or are otherwise data deficient, and adds them to the Priority Fauna Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna. Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons,

are placed in Priority 4. These species require regular monitoring. Consideration of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations (see Appendix 1 for more detail of the priority codes).

Informal Recognition of Threatened Fauna

Certain populations or communities of fauna may be of local significance or interest because of their patterns of distribution and abundance. For example, fauna may be locally significant because they are range extensions to the previously known distribution or are newly discovered species (and have the potential to be of conservation significance). In addition, many species are in decline as a result of threatening processes (land clearing, grazing, and changed fire regimes) and relict populations of such species assume local importance for DBCA. It is not uncommon for DBCA to make comment on these species of interest.

1.4 Information on Target Fauna Species

Carnaby's Black Cockatoo

Carnaby's Black Cockatoo is listed as Endangered under the EPBC Act and the BC Act. It is endemic to south-west WA and is distributed from the Murchison River to Esperance and inland to Coorow, Kellerberrin and Lake Cronin (Cooper 2003). The species was once common, but the population has declined significantly in the last half century and is now locally extinct in some areas (Johnstone & Storr 1998; Shah 2006). In the last 45 years (prior to Cale 2003) the species has suffered a 50% reduction in its abundance (Cale 2003). More recent information suggests this decline has continued. This reduction is due to the clearing of core breeding habitat in the wheatbelt, the deterioration of nesting hollows, and clearing of food resources on the Swan Coastal Plain (SCP) (Cale 2003). The total population of Carnaby's Black Cockatoo was estimated to be 40,000 in 2008 (Johnstone & Kirkby 2008). Since then, trend analyses of the seven Great Cocky Counts 2010 – 2017 identified strong indications that the population of Carnaby's Black Cockatoo inhabiting the Perth-Peel Coastal Plain continues to decline.

Carnaby's Black Cockatoos feed on seeds, nuts and flowers of a variety of native and exotic plants. Food plants include a variety of Eucalyptus species, such as Marri, Jarrah, Swan River Blackbutt (*Eucalyptus patens*), Coastal Blackbutt (*Eucalyptus todtiana*), Caesia (*Eucalyptus caesia*) and Salmon Gum, as well as Pine trees (Pinus sp.), Grevillea, Allocasuarina, and Hakea species (Shah 2006). Marri nuts that are damaged extensively, especially on the main body of the nut, are likely to have been chewed by Carnaby's Black Cockatoo. The 'levering' of Marri nuts by Carnaby's Black Cockatoos tends to leave different marks on the fruit casings, particularly in the location of indentations by the lower mandible and in the amount of damage caused to the rim of the fruit casing. Carnaby's Black Cockatoos also generally feed on green Marri nuts that are soft enough for their beaks to manipulate. The seeds from a variety of Banksia species and the cones of Pine trees provide the highest energetic yield (Cooper *et al*. 2002).

Breeding has been recorded from early July to mid-December, and primarily occurs in the wheatbelt in the semi-arid and subhumid interior (Johnstone & Storr 1998). However, this species is currently expanding its breeding range westward and south into the Jarrah-Marri forests of the Darling Scarp (e.g., Wungong Dam Catchment) and into the Tuart forests of the SCP including Yanchep, Baldivis, Lake Clifton and near Bunbury (Johnstone & Kirkby 2011).

Carnaby's Black Cockatoo display strong pair bonds and mate for life. They nest in hollows of smooth-barked eucalypts particularly Salmon Gum and Wandoo but nests have also been found in other Eucalypt species including York Gum (*Eucalyptus loxophleba*), Flooded Gum (*Eucalyptus rudis*), the rough-barked Marri and Tuart (Johnstone & Kirkby 2011). In most nests in Tuart, eggs are laid on a mat of wood chips at the bottom of a large hollow (mostly top entry hollows) ranging from a few cm's to five m deep (Johnstone & Kirkby 2011). Clutch size is 1–2 eggs, more typically two; only one young is reared (Saunders 1986). Incubation lasts for 29 days and only the female incubates and broods. The nestling is brooded by the female during which time both rely on food from the male. Once brooding is complete, the female then leaves the nest each day at dawn, sometimes returning mid-morning (with the male) to feed the chick (Johnstone & Kirkby 2011). After approximately three weeks she ceases to brood and the chick is fed by one or both parents in the morning and in the late evening (Johnstone & Kirkby 2011).

Approximately 87% (525,732 ha) of potential Carnaby's Black Cockatoo habitat (i.e., areas of vegetation that contain flora species and vegetation types that could support the species' breeding, feeding and night roosting activities) has been cleared in the wheatbelt since European settlement. The south-west region is now a severely fragmented landscape and the further loss of foraging habitat, the lack of suitable breeding sites, climate change, alterations in the landscape, changing forest structure with almost every part of the Jarrah-Marri forest logged in the past and with most trees too young to form hollows, and competition with exotic species, exacerbate the future conservation of Carnaby's Black Cockatoo (Johnstone & Kirkby 2011).

Baudin's Black Cockatoo

Baudin's Black Cockatoo is listed as Endangered under the EPBC Act and the BC Act. This species is distributed through the south-western humid and subhumid zones, from the northern Darling Range and adjacent far east of the SCP (south of the Swan River), south to Bunbury and across to Albany (Johnstone & Kirkby 2011). Baudin's Black Cockatoo rarely occurs near the coast north of Mandurah, and rarely occurs north of the Swan River (Johnstone & Kirkby 2008, Johnstone & Storr 1998). Baudin's Black Cockatoo usually occur in small flocks of up to 30, or occasionally up to 50 and rarely in aggregations of up to 1200 (Johnstone & Kirkby 2008). Baudin's Black Cockatoo is distinguished from Carnaby's Black Cockatoo by its longer bill and slightly different call.

This species forages primarily in Eucalypt forest, where it feeds on Marri seeds, flowers, nectar and buds. They also feed on a wide range of seeds of Eucalyptus, Banksia, Hakea and Pines (*Pinus* sp.) as well as fruiting apples and pears and beetle larvae from under the bark of trees (Johnstone & Kirkby 2008, Johnstone & Storr 1998). Baudin's Black Cockatoo forages at all levels of the forest, from the canopy to the ground, often feeding in the understorey on proteaceous trees and shrubs, especially Banksia, and in orchards both in trees and on dropped or fallen fruit on the ground.

The breeding biology of this species is poorly known. It has been recorded breeding in the deep south-west, north to the Whicher Range and Lowden and also isolated records at Wungong Catchment, Serpentine (hills area) and east to Kojonup and near Albany (Johnstone & Kirkby 2008). They nest in large, mostly vertical, hollows of Karri, Marri and Wandoo. Baudin's Black Cockatoos display strong pair bonds are monogamous and most likely mate for life (Johnstone & Kirkby 2008). The pair remains together all year round except when the female is incubating and brooding. Both adults play a part in selecting the nest hollow, but only the female is responsible for renovation and preparing the hollow for breeding. Preparation of the hollow consists of chewing around the entrance of the hollow and down one part of the interior wall. Pairs have also been recorded prospecting for hollows in most months and outside the breeding range (Johnstone & Kirkby 2008).

Forest Red-tailed Black Cockatoo

The FRTBC is listed as Vulnerable under the EPBC Act and the BC Act. It is distributed through the humid and subhumid south-west of WA from Gingin through the Darling Ranges to the south-west from Bunbury to Albany (primarily in the hilly interior) (Johnstone & Storr 1998, Johnstone *et al.* 2013a). In these areas, the FRTBC inhabits dense Jarrah, Karri, and Marri forests that receive more than 600 mm average annual rainfall (Johnstone & Storr 1998). However, in recent years the FRTBC has moved on to the SCP to forage in the Perth metropolitan area (Johnstone & Kirkby 2011). The FRTBC occurs in pairs or small flocks, or occasionally large flocks of up to 200 birds (Johnstone & Storr 1998).

The FRTBC feeds primarily on Marri and Jarrah fruit, but also Tuart and to a lesser extent on Blackbutt, Albany Blackbutt (*Eucalyptus staeri*), Karri, Sheoak (*Allocasuarina fraseriana*) and Snottygobble (*Persoonia longifolia*) (Johnstone *et al*. 2013b). The FRTBC can obtain energy faster when feeding on Marri and Jarrah than other food sources (Cooper *et al*. 2002), and these two-plant species make up most of their diet (Johnstone *et al.* 2013b).

FRTBC shear the base of Marri nuts at a 45º angle to remove seeds (the 'bottom slice' method), while Baudin's Black Cockatoos use their elongated upper mandible to pry seeds out, leaving the nut intact (the 'lever') (Johnstone & Kirkby 1999, Cooper *et al*. 2002). Carnaby's Black Cockatoos may use either technique to feed on Marri nuts, but generally with some modification, e.g., the 'slicing' of fruits may occur along the side of the fruit casing.

The FRTBC is monogamous and pairs nest in tree hollows from 6.5 – 33 m above ground and most nests are in large and old mature Marri, and these trees are the most important nesting tree throughout the FRTBC range (Johnstone *et al.* 2013a). Nest trees of the FRTBC have a mean circumference at breast height of 2.79 m, a mean estimated age of 222 years and a mean overall height of 20.24 m (Johnstone *et al*. 2013a).

Breeding has been recorded in all months, with peaks in April-June and August-October. Only one egg is laid, which the female incubates for 29 to 31 days, before a nestling hatches and weighs between 27 and 32 g. The female remains in the hollow during incubation and only leaves for a short period in the evening to be fed by the male, usually at dusk (Johnstone *et al*. 2013b). Brooding is for up to 10 days, after which the female leaves the nest between dawn and dusk. Pairs of birds appear to recognise each other by calls, not responding to calls by others in the area. Chicks only respond when the parent is heard and are fully feathered at 48 days (Johnstone *et al.* 2013b).

Western Ringtail Possum

The Western Ringtail Possum is listed as Critically Endangered (CR) under the EPBC Act and the BC Act. Western Ringtail Possum (WRP) populations have declined or become locally extinct over much of their former range in the south-west as a result of clearing and fragmentation of habitat associated with agricultural development (Jones *et al.* 1994; Shedley & Williams 2014). However, even in the relatively intact forested regions of the south-west, populations have declined significantly, particularly since 1998 (Shedley & Williams 2014; Woinarski *et al*. 2014). Threatening processes include logging intensity, inappropriate fire regimes, dieback, and a drying climate may have all contributed to the degradation of WRP habitat and increased the exposure of WRP to predation by foxes (*Vulpes vulpes*) and cats (*Felis catus*) or to heat stress (Jones *et al*. 1994; Wayne *et al*. 2005; Woinarski *et al*. 2014).

The highest population densities of WRP are now found around the Bunbury (Binningup) to Dunsborough coastal strip, which coincides with an area of urban development and loss of prime habitat (Shedley & Williams 2014). This coastal strip is considered to be a stronghold for the WRP and is therefore a focus for recovery and conservation of the species. High WRP population densities have been recorded in some urban areas, particularly where mature Peppermint trees (*Agonis flexuosa*) with large, dense and overlapping canopies have been retained (Harewood 2008). This habitat type is thought to provide high quality shelter and food. High population densities may indicate that WRP have benefited from some forms of urbanisation, or alternatively have been displaced from the broader setting by vegetation clearing and are confined to smaller pockets of remnant habitat.

The main component of suitable habitat for WRP is the Peppermint tree either as a dominant woodland species or as an understory component of Eucalypt woodland (Jones *et al*. 1994). In coastal areas, the WRP diet is largely dominated by Peppermint leaves (Jones *et al*. 1994; De Torres 2008). Ideal WRP habitat comprises of long unburnt mature remnants of Peppermint woodlands with high canopy continuity and high foliage nutrients (high in nitrogen and low toxin levels); other habitats comprise of Jarrah/Marri forests and woodlands with adequate hollows, coastal heath, myrtaceous heaths and shrublands, Bullich (*Eucalyptus megacarpa*) dominated riparian zones and karri forests.

2 Methods

2.1 Requirements for Fauna Surveys

The fauna survey was completed in accordance with the following Environmental Protection Authority (EPA) and DCCEEW requirements for the environmental surveying and reporting of fauna surveys in WA, where relevant and practical, and as documented in:

- EPA Technical Guidance: Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA 2020)
- Survey Guidelines for Australia's Threatened Mammals. EPBC Act survey guidelines 6.5 (2011) (DSEWPaC)
- Commonwealth Department of Agriculture, Water and the Environment (DAWE) referral guideline for 3 WA threatened Black Cockatoo species (2022)
- EPBC Act Policy Statement 3.10: Significant impact guidelines for the vulnerable Western Ringtail Possum (*Pseudocheirus occidentalis*) in the southern Swan Coastal Plain, Western Australia (DEWHA 2009).
- Threatened Species Scientific Committee. Conservation Advice where provided for species listed under the EPBC Act (DCCEEW).

2.2 Fauna Desktop Assessment

Searches of the DBCA threatened fauna database and the Commonwealth Protected Matters Search Tool (PMST) were undertaken to identify records of Black Cockatoos and WRP potentially occurring in the survey area (DBCA 2023, DCCEEW 2023). These searches were centred around co-ordinates -33° 26' 24" and 115° 40' 07" with a 30 km buffer applied.

2.3 Fauna Field Survey

The field survey was undertaken on 29th September 2023 by two qualified Zoologists. As per the scope and proposal, the field survey consisted of targeted conservation significant fauna habitat assessments in order to define the fauna values of the survey area.

2.3.1 Black Cockatoo Habitat Assessment

The survey area is in the known distributional range of Baudin's Black Cockatoo, Carnaby's Black Cockatoo and FRTBC (DAWE 2022).

The Black Cockatoo habitat assessment was undertaken in suitable habitat and the survey methods were undertaken with reference to the referral guidelines for Black Cockatoos (DAWE 2022).

Breeding Assessment

Black Cockatoos breed in large hollow-bearing trees, generally in woodlands or forests. The size of the tree can be a useful indication of the hollow-bearing potential of the tree. During the survey, trees considered to be suitable for breeding based on the following criteria were examined:

- Native trees (e.g., Marri, Jarrah, Flooded Gum etc.)
- Diameter at breast height (DBH) > 500 mm (300 mm for Wandoo and Salmon Gum)
- GPS co-ordinates were recorded using a GPS
- Suitable Black Cockatoo breeding hollows were assessed (from the ground) if present and based on the following:
  - 120 mm diameter at entrance
  - location of hollow (i.e., situated on main trunk)
  - direction of hollow
  - height of hollow
  - depth of hollow (where possible to assess from the ground)
  - evidence of breeding activity.

Foraging Assessment

The Black Cockatoo habitat assessment involved assessing the habitat for tree and shrub species known to be important dietary items e.g., Marri, Jarrah, Banksia spp. and other Proteaceous species and included looking for the following (if present):

- Native trees and shrubs (e.g., Eucalypts, Banksia spp. and other Proteaceous species etc.)
- Evidence of feeding (chewed cones, seed and nut material)
- Opportunistic observations of Black Cockatoos in the survey area.

Foraging habitat quality criteria (semi quantitative) based on preferred known food items has been developed, their extent in an area being assessed and the condition of the habitat. Please note that we have attempted to keep this criterion simple, practicable and repeatable across habitats and regions so that assessments are consistent (see Table 1 below).

Table 1: Foraging habitat quality and the criteria it is assessed against.

Please note that the primary and secondary food sources have been identified in the literature and these will be cited in the results section.

Foraging Habitat Quality	Criteria
High Quality	• Primary food sources present and dominant (high relative abundance) in an area greater than 1 ha • Secondary food sources also present in medium to high relative abundance in an area greater than 1 ha • No recent extensive fire (>1 year) and limited to no signs of disease such as *Phytophthora cinnamomi* and//or Marri canker
Medium Quality	• Primary food sources present but not dominant (medium relative abundance) in an area greater than 1 ha, and/or • Secondary food sources also present in medium to high relative abundance in an area greater than 1 ha • No recent extensive fire (>1 year) and limited signs of disease such as *Phytophthora cinnamomi* and/or Marri canker
Low Quality	• Very limited to no primary food sources present in an area, and/or • Secondary food sources also present in low to medium relative abundance • Recent fire (<1 year) and or signs of disease such as *Phytophthora cinnamomi* and/or Marri canker
Nil	No habitat.

Roost Assessment

Surveying for roosting habitat was carried out in the survey area, with a focus on tree species known to be used for roosting and included looking for signs such as large numbers of feathers and bespatter under trees. The DBCA threatened fauna database was also examined to determine if any roosts were in or near the survey area.

2.3.2 Western Ringtail Possum Habitat Assessment

Potential WRP habitat in the survey area was assessed and classified as vegetation containing species known to be used for shelter (dens in hollows and dreys) and species known to form part of the species diet. For example, species including Marri, Peppermint (*Agonis flexuous*), Flooded Gum (*Eucalyptus rudis*), Spearwood (*Kunzea glabrescens)*, *Melaleuca viminea*, Christmas Tree (*Nuytsia floribunda*), Woody Pear (*Xylomelum occidentale*) and *Acacia saligna* (Shedley & Williams, 2014).

Diurnal resting sites and refuges include dreys, platforms, tree hollows, hollow logs, balga (*Xanthorrhoea* spp.) skirts, under sedges, forest debris and disused rabbit warrens (Jones *et al.* 1994, Wayne *et al.* 2000, Wayne 2005). Dreys range from rough platforms to more elaborate roughly spherical arboreal nests constructed from vegetation and are generally built where hollows are absent (de Tores *et al*. 1998).

The WRP habitat assessment consisted of the following:

- Daytime searches for potential den sites (including dreys in trees and large shrubs such as Peppermints and potential tree hollows) were undertaken in suitable habitat where there were trees considered large enough to contain hollow-bearing trees of a suitable size.
- Daytime searches for signs of activity, such as scratches on tree trunks and scats on the ground below trees with hollows or dreys were undertaken.

3. Results

3.1 Fauna Database results

Results of the DBCA database and EPBC PMST confirmed the occurrence of the four species in the local area (Figure 2).

3.2 Black Cockatoo Habitat Assessment

During the field survey, no Black Cockatoos were recorded directly, they were recorded however, through foraging evidence, in the way of chewed Marri nuts. Foraging evidence from all three species was recorded, however it was mainly FRTBC. An example of some of the chewed Marri nuts recorded can be seen in Plate 1.

Plate 1: Marri nuts chewed by Black Cockatoos (the bottom two nuts show chew marks from FRTBC, the top two nuts are considered likely to be from Baudin's Black Cockatoo).

Figure 2: DBCA Black Cockatoo and WRP Records

0 4 8 km

GDA2020 - MGA Zone 50

Legend

Threatened Fauna (DBCA records)

- Baudin's Black Cockatoo
- Carnaby's Back Cockatoo
- Forest Red-tailed Black Cockatoo
- Western Ringtail Possum
- White-tailed Black Cockatoo

- Survey Area
- 30km Buffer

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Ref: 223_004_RevB.qgz

Potential Breeding Habitat

A total of 3 ha of potential breeding habitat was recorded in the survey area and has been mapped in Figure 3. This consisted of Marri and Jarrah trees, which may provide potential breeding habitat for all three species of Black Cockatoo. A total of 75 potential breeding trees (including one stag), with a DBH > 500mm were recorded in the survey area, the locations and details of which can be seen in Appendix 4. A number of photographs can also be seen in Appendix 5.

There were no hollows considered suitable for Black Cockatoos to nest in (when observed from the ground) within the survey area.

A number of the potential breeding trees were unsuitable in their form with many branching trunks and some were almost entirely hollow from the base upwards as a result of past fires. While these trees were measured due to their DBH being > 500 mm, they are unlikely to form suitable breeding hollows in the future.

Foraging Habitat

There is a total of 3 ha of potential foraging habitat in the survey area, consisting of Marri and Jarrah trees (regardless of their DBH) and scattered *Banksia grandis and B. attenuata.* These species are all known foraging items of Black Cockatoos (Banksia is primarily Carnaby's Black Cockatoo).

The survey area contains Black Cockatoo foraging habitat species as outlined below in Table 2. The quality of the foraging habitat varies depending on which Black Cockatoo species is being considered and the extent of the habitat present.

Foraging habitat that contains Marri and Jarrah provides the highest quality foraging habitat to Baudin's Black Cockatoo and FRTBC (Marri is the primary food source for Baudin's Black Cockatoo and FRTBC) and medium quality foraging habitat to Carnaby's Black Cockatoo (an important dietary item to Carnaby's Black Cockatoo but not its primary food source). Foraging habitat that contains proteaceous species such as Banksia are the primary food source for Carnaby's Black Cockatoo (DAWE 2022) and provides the highest quality foraging habitat.

Table 2. Broad foraging habitat and quality for all three Black Cockatoo species in the survey area.

Foraging Habitat Quality				
Broad Foraging Habitat Type	Baudin's Black Cockatoo	Carnaby's Black Cockatoo	FRTBC	References – some examples that identify food resources and their relative importance in the diet of BBC, CBC and FRTBC.
Eucalypt Woodland (containing Marri and Jarrah)	High	Medium - high	High	Cooper *et al*. 2002, DSEWPaC 2012, Groom 2011, Johnstone *et al.* 2011, Johnstone *et al*. 2013 (a & b), Saunders 1980, Shah 2006, Valentine & Stock 2008.
Proteaceous species (e.g. *B. grandis and B. attenuata*	Medium	High	Medium	

Roosting Habitat

In general, Black Cockatoo roosting habitat is considered to be any tall trees, in or near riparian environments or other permanent water sources, particularly tall Jarrah, Marri, Blackbutt, Tuart, Flooded Gum, Lemon Scented Gum, Flat-topped Yate, Salmon Gum and Wandoo, as well as other introduced eucalypt trees or large trees on the edges of forests (DAWE 2022). Some of the taller trees in the survey area could potentially be used for roosting.

The DBCA threatened fauna database returned six Black Cockatoo roosts within 30 km of the survey area. All roost records were from targeted fauna surveys undertaken in 2009 and 2013. The closest recorded roost was approximately 4.2 km to the north-west of the survey area.

No Black Cockatoo roosts were recorded in the survey area.

3.3 Western Ringtail Possum Habitat Assessment

The survey area consisted of mature trees (Marri and Jarrah) with an understory of Peppermint trees in some locations and a few scattered Peppermints (Figure 3, Plate 2). A total of 3 ha of potentially suitable WRP habitat was therefore recorded in

the survey area, which contains both foraging and potential denning habitat in which the species could build dreys. During the assessment, no WRP were observed or their scats and no dreys or hollows suitable for denning were recorded in trees.

Plate 2: Example of Marri tree (DBH > 500 mm), Peppermint and cleared areas.

376000 376250 376500

6299500 6299000

376000 376250 376500

Figure 3: Fauna Habitat (Black Cockatoos and WRP)

0 50 100 m

GDA2020 - MGA Zone 50

Legend

Potential Black Cockatoo Breeding Trees

(DBH >500 mm, no suitable hollows)

- Jarrah
- Marri
- Stag

Fauna Habitat

- Scattered Eucalypts over Peppermint
- Cleared

Survey Area

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4 Discussion

4.1 Black Cockatoos

All three species of Black Cockatoo (Carnaby's Black Cockatoo, Baudin's Black Cockatoo and FRTBC) could potentially occur in the survey area.

Potential Breeding Habitat

According to the Black Cockatoo Guidelines (DSEWPaC, 2012), Black Cockatoos breed in hollows in very long-lived trees. Hollows large enough for nesting Black Cockatoos are usually only found in trees that are more than 200 years old (DSEWPaC, 2012). The majority of the trees in the survey area are estimated to be younger than 200 years old.

A total of 75 Marri and Jarrah trees were present in the survey area with a DBH of > 500mm. As such they are considered potential nesting habitat. No potentially suitable, observable hollows were recorded in any of the trees when viewed from the ground.

Foraging Habitat

A total of 3 ha of potential foraging habitat is also present in the survey area, which consists of Marri and Jarrah trees (regardless of their DBH), B*. attenuata and B. grandis* (however this was very limited), all of which are known foraging items for Black Cockatoos (DAWE 2022). The results (foraging evidence) support the known occurrence of the three species of Black Cockatoo in the local area. In addition foraging evidence was found throughout the survey area, in the way of chewed Marri nuts (by all three Black Cockatoo species, however the majority was from FRTBC).

4.2 Western Ringtail Possum (*Pseudocheirus occidentalis*)

The survey area contains 3 ha of potentially suitable WRP habitat in the way of Marri and Jarrah trees over a mid-story of Peppermint. Peppermint when available, is the preferred habitat of the WRP. During the field survey, no dreys or scats were recorded in the survey area.

The vegetation is sparse and scattered throughout the survey area and not continuous with the surrounding vegetation, however, given the nearby records, the WRP is considered as possibly occurring in the survey area.

5 References

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APPENDICES

Appendix 1: Conservation Categories

Categories of Threatened Flora and Fauna Species under the EPBC Act

Conservation Code	Description
Ex	Extinct Taxa which at a particular time if, at the time, there is no reasonable doubt that the last member of the species has died.
ExW	Extinct in the Wild Taxa which is known only to survive 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 appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CE	Critically Endangered Taxa which at a particular time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
En	Endangered Taxa which is not critically endangered and it is facing a very high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
Vu	Vulnerable Taxa which is not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.

Source: Environment Protection and Biodiversity Conservation Act 1999.

Categories of Threatened Flora and Fauna Species under the BC Act

Department of **Biodiversity, Conservation and Attractions**

GOVERNMENT OF WESTERN AUSTRALIA

CONSERVATION CODES

For Western Australian Flora and Fauna

Threatened, Extinct and Specially Protected fauna or flora[1] are species[2] which have been adequately searched for and are deemed to be, in the wild, threatened, extinct or in need of special protection, and have been gazetted as such.

The *Wildlife Conservation (Specially Protected Fauna) Notice 2018* and the *Wildlife Conservation (Rare Flora) Notice 2018* have been transitioned under regulations 170, 171 and 172 of the *Biodiversity Conservation Regulations 2018* to be the lists of Threatened, Extinct and Specially Protected species under Part 2 of the *Biodiversity Conservation Act 2016*.

Categories of Threatened, Extinct and Specially Protected fauna and flora are:

T **Threatened species**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

Threatened fauna is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

Threatened flora is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR **Critically endangered species**

Threatened species considered to be *"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"*.

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

EN **Endangered species**

Threatened species considered to be *"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"*.

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

VU **Vulnerable species**

Threatened species considered to be *"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"*.

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

Conservation codes for Western Australian flora and fauna

Extinct species

Listed by order of the Minister as extinct under section 23(1) of the BC Act as extinct or extinct in the wild.

EX **Extinct species**

Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

EW **Extinct in the wild species**

Species that "*is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it 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*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

Specially protected species

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

MI **Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

CD **Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

OS **Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

Conservation codes for Western Australian flora and fauna

P **Priority species**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

1 **Priority 1: Poorly-known species**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, 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.

2 **Priority 2: Poorly-known species**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, 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.

3 **Priority 3: Poorly-known species**

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. 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.

4 **Priority 4: Rare, Near Threatened and other species in need of monitoring**

(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.
(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.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

[1] The definition of flora includes algae, fungi and lichens
[2] Species includes all taxa (plural of taxon - a classificatory group of any taxonomic rank, e.g. a family, genus, species or any infraspecific category i.e. subspecies or variety, or a distinct population).

Last updated 3 January 2019

Appendix 2: EPBC PMST Results

EPBC Act Protected Matters Report

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

Report created: 21-Sep-2023

Summary
Details
- Matters of NES
- Other Matters Protected by the EPBC Act
- Extra Information

Caveat
Acknowledgements

Summary

Matters of National Environment Significance

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

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	2
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	2
Listed Threatened Ecological Communities:	7
Listed Threatened Species:	87
Listed Migratory Species:	53

Other Matters Protected by the EPBC Act

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

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

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

Commonwealth Lands:	24
Commonwealth Heritage Places:	None
Listed Marine Species:	77
Whales and Other Cetaceans:	13
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	3
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

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

State and Territory Reserves:	30
Regional Forest Agreements:	1
Nationally Important Wetlands:	3
EPBC Act Referrals:	118
Key Ecological Features (Marine):	2
Biologically Important Areas:	11
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

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

Ramsar Site Name	Proximity	Buffer Status
Peel-yalgorup system	Within 10km of Ramsar site	In buffer area only
Vasse-wonnerup system	Within Ramsar site	In buffer area only

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 a Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area.

Feature Name	Buffer Status
Commonwealth Marine Areas (EPBC Act)	In buffer area only
Commonwealth Marine Areas (EPBC Act)	In buffer area only

Listed Threatened Ecological Communities [Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.
Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Community Name	Threatened Category	Presence Text	Buffer Status
Banksia Woodlands of the Swan Coastal Plain ecological community	Endangered	Community likely to occur within area	In feature area
Clay Pans of the Swan Coastal Plain	Critically Endangered	Community likely to occur within area	In buffer area only
Corymbia calophylla - Xanthorrhoea preissii woodlands and shrublands of the Swan Coastal Plain	Endangered	Community known to occur within area	In buffer area only
Empodisma peatlands of southwestern Australia	Endangered	Community likely to occur within area	In feature area
Shrublands on southern Swan Coastal Plain ironstones	Endangered	Community likely to occur within area	In buffer area only
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In buffer area only
Tuart (Eucalyptus gomphocephala) Woodlands and Forests of the Swan Coastal Plain ecological community	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species [Resource Information]

Status of Conservation Dependent and Extinct are not MNES under the EPBC Act.
Number is the current name ID.

Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat may occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Zanda baudinii listed as Calyptorhynchus baudinii Baudin's Cockatoo, Baudin's Black-Cockatoo, Long-billed Black-cockatoo [87736]	Endangered	Breeding known to occur within area	In feature area
Zanda latirostris listed as Calyptorhynchus latirostris Carnaby's Black Cockatoo, Short-billed Black-cockatoo [87737]	Endangered	Breeding known to occur within area	In feature area
CRUSTACEAN			
Engaewa pseudoreducta Margaret River Burrowing Crayfish [82674]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
FISH			
Galaxiella nigrostriata Blackstriped Dwarf Galaxias, Black-stripe Minnow [88677]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Nannatherina balstoni Balston's Pygmy Perch [66698]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Bettongia penicillata ogilbyi Woylie [66844]	Endangered	Species or species habitat known to occur within area	In buffer area only
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Myrmecobius fasciatus Numbat [294]	Endangered	Species or species habitat may occur within area	In buffer area only
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
Pseudocheirus occidentalis Western Ringtail Possum, Ngwayir, Womp, Woder, Ngoor, Ngoolangit [25911]	Critically Endangered	Breeding known to occur within area	In feature area
Setonix brachyurus Quokka [229]	Vulnerable	Species or species habitat known to occur within area	In feature area
OTHER			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Westralunio carteri](#) Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
PLANT			
[Andersonia gracilis](#) Slender Andersonia [14470]	Endangered	Species or species habitat may occur within area	In buffer area only
[Austrostipa bronweniae listed as Austrostipa bronwenae](#) [92773]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Austrostipa jacobsiana](#) [87809]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
[Banksia mimica](#) Summer Honeypot [82765]	Endangered	Species or species habitat known to occur within area	In feature area
[Banksia nivea subsp. uliginosa](#) Swamp Honeypot [82766]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Banksia squarrosa subsp. argillacea](#) Whicher Range Dryandra [82769]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Brachyscias verecundus](#) Ironstone Brachyscias [81321]	Critically Endangered	Species or species habitat known to occur within area	In buffer area only
[Caladenia busselliana](#) Bussell's Spider-orchid [24369]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Caladenia hoffmanii](#) Hoffman's Spider-orchid [56719]	Endangered	Species or species habitat known to occur within area	In buffer area only
[Caladenia huegelii](#) King Spider-orchid, Grand Spider-orchid, Rusty Spider-orchid [7309]	Endangered	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Caladenia procera Carbunup King Spider Orchid [68679]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Chamelaucium sp. S coastal plain (R.D.Royce 4872) Royce's Waxflower [87814]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Darwinia whicherensis Abba Bell [83193]	Endangered	Species or species habitat known to occur within area	In buffer area only
Daviesia elongata subsp. elongata Long-leaved Daviesia [64883]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Diuris drummondii Tall Donkey Orchid [4365]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diuris micrantha Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat known to occur within area	In feature area
Diuris purdiei Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat likely to occur within area	In feature area
Drakaea elastica Glossy-leafed Hammer Orchid, Glossy-leaved Hammer Orchid, Warty Hammer Orchid [16753]	Endangered	Species or species habitat known to occur within area	In feature area
Drakaea micrantha Dwarf Hammer-orchid [56755]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eleocharis keigheryi Keighery's Eleocharis [64893]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Gastrolobium modestum Broad-leaved Gastrolobium [78361]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Gastrolobium papilio Butterfly-leaved Gastrolobium [78415]	Endangered	Species or species habitat known to occur within area	In buffer area only
Grevillea elongata Ironstone Grevillea [64578]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Grevillea maccutcheonii McCutcheon's Grevillea [64522]	Endangered	Species or species habitat known to occur within area	In buffer area only
Lambertia echinata subsp. occidentalis Western Prickly Honeysuckle [64528]	Endangered	Species or species habitat known to occur within area	In buffer area only
Morelotia australiensis listed as Tetraria australiensis Southern Tetraria [92784]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Petrophile latericola Laterite Petrophile [64532]	Endangered	Species or species habitat known to occur within area	In buffer area only
Synaphea sp. Fairbridge Farm (D.Papenfus 696) Selena's Synaphea [82881]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Synaphea sp. Pinjarra Plain (A.S.George 17182) [86878]	Endangered	Species or species habitat known to occur within area	In buffer area only
Synaphea sp. Serpentine (G.R.Brand 103) [86879]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Synaphea stenoloba Dwellingup Synaphea [66311]	Endangered	Species or species habitat known to occur within area	In buffer area only
Verticordia densiflora var. pedunculata Long-stalked Featherflower [55689]	Endangered	Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Verticordia plumosa var. vassensis](#) Vasse Featherflower [55804]	Endangered	Species or species habitat known to occur within area	In buffer area only
REPTILE			
[Caretta caretta](#) Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Chelonia mydas](#) Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Dermochelys coriacea](#) Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
[Natator depressus](#) Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
SHARK			
[Carcharias taurus (west coast population)](#) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Carcharodon carcharias](#) White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
[Galeorhinus galeus](#) School Shark, Eastern School Shark, Snapper Shark, Tope, Soupfin Shark [68453]	Conservation Dependent	Species or species habitat may occur within area	In buffer area only
[Pristis pristis](#) Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
[Rhincodon typus](#) Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sphyrna lewini			
Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus			
Common Noddy [825]		Species or species habitat may occur within area	In buffer area only
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Ardenna carneipes			
Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea			
Sooty Shearwater [82651]		Species or species habitat may occur within area	In buffer area only
Diomedea amsterdamensis			
Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea dabbenena			
Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora			
Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans			
Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi			
Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Marine Species			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Eubalaena australis as Balaena glacialis australis Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
Isurus oxyrinchus Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area	In buffer area only
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Lamna nasus](#) Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In buffer area only
[Megaptera novaeangliae](#) Humpback Whale [38]		Congregation or aggregation known to occur within area	In buffer area only
[Mobula alfredi as Manta alfredi](#) Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
[Mobula birostris as Manta birostris](#) Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
[Natator depressus](#) Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
[Pristis pristis](#) Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat may occur within area	In feature area
[Rhincodon typus](#) Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Terrestrial Species			
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In buffer area only
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa stagnatilis			
Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

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

Commonwealth Land Name	State	Buffer Status
Defence		
Defence - BUNBURY TRAINING DEPOT [50142]	WA	In buffer area only
Unknown		
Commonwealth Land - [51110]	WA	In buffer area only
Commonwealth Land - [50411]	WA	In buffer area only
Commonwealth Land - [50435]	WA	In buffer area only
Commonwealth Land - [51490]	WA	In buffer area only
Commonwealth Land - [50744]	WA	In buffer area only
Commonwealth Land - [50403]	WA	In buffer area only
Commonwealth Land - [50400]	WA	In buffer area only
Commonwealth Land - [50406]	WA	In buffer area only
Commonwealth Land - [50407]	WA	In buffer area only
Commonwealth Land - [50607]	WA	In buffer area only
Commonwealth Land - [51131]	WA	In buffer area only
Commonwealth Land - [51500]	WA	In buffer area only
Commonwealth Land - [50409]	WA	In buffer area only
Commonwealth Land - [50269]	WA	In buffer area only
Commonwealth Land - [52121]	WA	In buffer area only

Commonwealth Land Name	State	Buffer Status
Commonwealth Land - [52000]	WA	In buffer area only
Commonwealth Land - [51107]	WA	In buffer area only
Commonwealth Land - [51108]	WA	In buffer area only
Commonwealth Land - [50395]	WA	In buffer area only
Commonwealth Land - [50399]	WA	In buffer area only
Commonwealth Land - [50398]	WA	In buffer area only
Commonwealth Land - [50394]	WA	In buffer area only
Commonwealth Land - [50397]	WA	In buffer area only

Listed Marine Species

[Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area	In buffer area only
Anous tenuirostris melanops Australian Lesser Noddy [26000]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In buffer area only
Ardenna grisea as Puffinus griseus Sooty Shearwater [82651]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat likely to occur within area overfly marine area	In feature area
Calidris ruficollis Red-necked Stint [860]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius bicinctus Double-banded Plover [895]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius ruficapillus Red-capped Plover [881]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Diomedea amsterdamensis Amsterdam Albatross [64405]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area	In buffer area only
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Species or species habitat may occur within area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Hydroprogne caspia as Sterna caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In buffer area only
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Onychoprion anaethetus as Sterna anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Pachyptila turtur Fairy Prion [1066]		Species or species habitat likely to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In buffer area only
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Recurvirostra novaehollandiae Red-necked Avocet [871]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In buffer area only
Stercorarius antarcticus as Catharacta skua Brown Skua [85039]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thinornis cucullatus as Thinornis rubricollis Hooded Plover, Hooded Dotterel [87735]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur within area overfly marine area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In feature area
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area overfly marine area	In buffer area only
Fish			
[Acentronura australe](#) Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area	In buffer area only
[Campichthys galei](#) Gale's Pipefish [66191]		Species or species habitat may occur within area	In buffer area only
[Heraldia nocturna](#) Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area	In buffer area only
[Hippocampus angustus](#) Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area	In buffer area only
[Hippocampus breviceps](#) Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area	In buffer area only
[Hippocampus subelongatus](#) West Australian Seahorse [66722]		Species or species habitat may occur within area	In buffer area only
[Histiogamphelus cristatus](#) Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area	In buffer area only
[Lissocampus caudalis](#) Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area	In buffer area only
[Lissocampus fatiloquus](#) Prophet's Pipefish [66250]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area	In buffer area only
Mitotichthys meraculus Western Crested Pipefish [66259]		Species or species habitat may occur within area	In buffer area only
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area	In buffer area only
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area	In buffer area only
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area	In buffer area only
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area	In buffer area only
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area	In buffer area only
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area	In buffer area only
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Vanacampus margaritifer			
Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area	In buffer area only
Vanacampus phillipi			
Port Phillip Pipefish [66284]		Species or species habitat may occur within area	In buffer area only
Vanacampus poecilolaemus			
Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area	In buffer area only
Mammal			
Arctocephalus forsteri			
Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat may occur within area	In buffer area only
Neophoca cinerea			
Australian Sea-lion, Australian Sea Lion [22]	Endangered	Species or species habitat may occur within area	In buffer area only
Reptile			
Caretta caretta			
Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Chelonia mydas			
Green Turtle [1765]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only
Dermochelys coriacea			
Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In buffer area only
Natator depressus			
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In buffer area only

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera acutorostrata			
Minke Whale [33]		Species or species habitat may occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
[Balaenoptera edeni](#) Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
[Balaenoptera musculus](#) Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
[Caperea marginata](#) Pygmy Right Whale [39]		Species or species habitat may occur within area	In buffer area only
[Delphinus delphis](#) Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
[Eubalaena australis](#) Southern Right Whale [40]	Endangered	Breeding known to occur within area	In buffer area only
[Grampus griseus](#) Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
[Lagenorhynchus obscurus](#) Dusky Dolphin [43]		Species or species habitat may occur within area	In buffer area only
[Megaptera novaeangliae](#) Humpback Whale [38]		Congregation or aggregation known to occur within area	In buffer area only
[Orcinus orca](#) Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
[Stenella attenuata](#) Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
[Tursiops aduncus](#) Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only

Australian Marine Parks		[Resource Information]
Park Name	Zone & IUCN Categories	Buffer Status
Geographe	Multiple Use Zone (IUCN VI)	In buffer area only
Geographe	National Park Zone (IUCN II)	In buffer area only
Geographe	Special Purpose Zone (Mining Exclusion) (IUCN VI)	In buffer area only

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Benger Swamp	Nature Reserve	WA	In buffer area only
Capel	Nature Reserve	WA	In buffer area only
Dardanup	Conservation Park	WA	In buffer area only
Gwalia	Nature Reserve	WA	In buffer area only
Leschenault Peninsula	Conservation Park	WA	In buffer area only
Morangarel	Nature Reserve	WA	In buffer area only
Ngari Capes	Marine Park	WA	In buffer area only
NTWA Bushland covenant (0004)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0022)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0030)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0095)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0107)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0146)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0150)	Conservation Covenant	WA	In buffer area only
NTWA Bushland covenant (0175)	Conservation Covenant	WA	In buffer area only
Ruabon Townsite	Nature Reserve	WA	In buffer area only
Tuart Forest	National Park	WA	In buffer area only

Protected Area Name	Reserve Type	State	Buffer Status
Unnamed WA03249	Nature Reserve	WA	In buffer area only
Unnamed WA26238	Nature Reserve	WA	In buffer area only
Unnamed WA40552	5(1)(h) Reserve	WA	In buffer area only
Unnamed WA40564	Nature Reserve	WA	In buffer area only
Unnamed WA44838	Nature Reserve	WA	In buffer area only
Unnamed WA46006	Nature Reserve	WA	In buffer area only
Unnamed WA46070	Nature Reserve	WA	In buffer area only
Unnamed WA46108	Nature Reserve	WA	In buffer area only
Unnamed WA49857	Nature Reserve	WA	In buffer area only
Unnamed WA50190	Nature Reserve	WA	In buffer area only
Unnamed WA53600	Nature Reserve	WA	In buffer area only
Wellington	National Park	WA	In buffer area only
Wellington Discovery Forest	5(1)(h) Reserve	WA	In buffer area only

Regional Forest Agreements [Resource Information]

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

RFA Name	State	Buffer Status
South West WA RFA	Western Australia	In buffer area only

Nationally Important Wetlands [Resource Information]

Wetland Name	State	Buffer Status
Benger Swamp	WA	In buffer area only
McCarleys Swamp (Ludlow Swamp)	WA	In buffer area only
Vasse-Wonnerup Wetland System	WA	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Lillydale Road Widening	2023/09476		Completed	In buffer area only
Proposed Sand Extraction at Lot 601 Stanley Road, Wellesley, WA	2020/8635		Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Residential development, Dalyellup, WA	2023/09550		Referral Decision	In buffer area only
Runnymede Road Sand Quarry	2022/09262		Completed	In buffer area only
Runnymede Road Sand Quarry	2022/09332		Assessment	In buffer area only
Tutunup Mineral Sands Project	2022/09205		Referral Decision	In buffer area only
VV Walsh Cold Stores Expansion	2021/8902		Post-Approval	In buffer area only
Controlled action				
313-316 Mimminup Road, Dalyellup	2012/6274	Controlled Action	Post-Approval	In buffer area only
Aerial Application of Lavicide to Vasse-Wonnerup Wetlands	2010/5593	Controlled Action	Post-Approval	In buffer area only
Albemarle Lithium hydroxide manufacturing plant, Kemerton, WA	2017/8099	Controlled Action	Post-Approval	In buffer area only
Banksia Road Class III Putrescible Landfill, Crooked Brook, WA	2016/7672	Controlled Action	Assessment Approach	In buffer area only
Binningup Beach Residential Development, Lots 195, 304, 9003 Lakes Parade, Binningup WA	2009/5046	Controlled Action	Post-Approval	In buffer area only
Bluewaters Power Station Expansion Phases 3 & 4	2008/4113	Controlled Action	Proposed Decision	In buffer area only
Bunbury Outer Ring Road Northern and Central Section Project, WA	2019/8471	Controlled Action	Post-Approval	In buffer area only
Bunbury Outer Ring Road Southern Section	2012/6652	Controlled Action	Completed	In buffer area only
Bunbury Outer Ring Road Southern Section project, WA	2019/8543	Controlled Action	Final PD	In buffer area only
Bunbury Port Berth 14A Expansion & Coal Storage & Loading Facility, WA	2014/7200	Controlled Action	Post-Approval	In buffer area only
Bussell Highway - Capel to Hutton Section, WA	2015/7626	Controlled Action	Post-Approval	In buffer area only
Bussell Highway Duplication Hutton to Sabina	2020/8800	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Clearing for Bunbury Airport Expansion, WA	2013/6872	Controlled Action	Post-Approval	In buffer area only
Construction of new sporting field	2007/3333	Controlled Action	Post-Approval	In buffer area only
Dalyellup Beach Estate - Residential Development	2007/3361	Controlled Action	Post-Approval	In buffer area only
Dardanup Mine Expansion Southern Extension	2011/6087	Controlled Action	Post-Approval	In buffer area only
Hard Rock Quarry, Shenton Ridge, Wellington, WA	2017/8085	Controlled Action	Post-Approval	In buffer area only
Kemerton SIA Road and Drainage project, near Australind, WA	2018/8237	Controlled Action	Post-Approval	In buffer area only
Koppers Wood Products Wood Processing Facility	2012/6691	Controlled Action	Post-Approval	In buffer area only
Leeuwin Offshore Wind Farm	2022/9160	Controlled Action	Assessment Approach	In buffer area only
Lot 20 and 42 Marriot Road Commercial Development	2021/8883	Controlled Action	Post-Approval	In buffer area only
Lot 4 Runnymede Road, Wellesley - Proposed Sand Extraction	2020/8862	Controlled Action	Assessment Approach	In buffer area only
Mining of titaninum mineral sands from four deposits located on both private la	2004/1628	Controlled Action	Completed	In buffer area only
Mining of titanium mineral sands in Happy Valley north and south, on private ...	2006/2597	Controlled Action	Completed	In buffer area only
Preston Industrial Park	2012/6312	Controlled Action	Completed	In buffer area only
Remove 1.87ha of degraded parkland cleared vegetation to utilising the area for	2010/5661	Controlled Action	Post-Approval	In buffer area only
Residential development, College Grove, WA	2015/7579	Controlled Action	Completed	In buffer area only
Residential Development, Lot 522 Ditchingham Place Australind, WA	2019/8432	Controlled Action	Assessment Approach	In buffer area only
Residential development Lot 71 Spurr St, Capel, WA	2019/8441	Controlled Action	Assessment Approach	In buffer area only
Sand and limestone extraction	2003/1284	Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Sand and Limestone Extraction on Lots 313 and 314, Harewoods Road	2005/2291	Controlled Action	Completed	In buffer area only
Sand Extraction Project, Lot 1 Southwest Highway, Boyanup, WA	2015/7449	Controlled Action	Assessment Approach	In buffer area only
Sand Extraction Project Lot 5 Wellesley Road, Wellesley Shire of Harvey	2021/9034	Controlled Action	Assessment Approach	In buffer area only
Sand mine	2008/4114	Controlled Action	Completed	In buffer area only
Sand Mine, Lot 122 Old Coast Road, Parkfield, Binningup, WA	2014/7164	Controlled Action	Post-Approval	In buffer area only
Sand Mining on Lot 7 Runnymede Road	2011/5996	Controlled Action	Post-Approval	In buffer area only
Silica Sand Mine Expansion	2002/910	Controlled Action	Post-Approval	In buffer area only
Somerville Drive Extension	2011/6153	Controlled Action	Post-Approval	In buffer area only
South Capel Remediation Project, WA	2018/8250	Controlled Action	Post-Approval	In buffer area only
Stage 2 of the Bunbury Port Access Project	2010/5768	Controlled Action	Post-Approval	In buffer area only
Titanium Minerals Deposit	2001/279	Controlled Action	Post-Approval	In buffer area only
Tutunup mineral sands mine	2008/4409	Controlled Action	Completed	In buffer area only
Undertake gravel extraction on Lot 20 Coalfields Road, Roelands	2013/6765	Controlled Action	Post-Approval	In buffer area only
Urban development subdivision	2013/6955	Controlled Action	Post-Approval	In buffer area only
WA Offshore Windfarm	2021/8961	Controlled Action	Assessment Approach	In buffer area only
Waste management project and quarry, Banksia Road, Dardanup, WA	2018/8270	Controlled Action	Proposed Decision	In buffer area only
Waterloo Heavy Mineral Mining Project, Henty, WA	2013/6879	Controlled Action	Post-Approval	In buffer area only
Wonnerup North Mineral Sands Project, Busselton, WA	2014/7205	Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Yalyalup Mineral Sands Project, WA	2017/8094	Controlled Action	Post-Approval	In buffer area only
Yarragadee Water Supply Development	2005/2073	Controlled Action	Completed	In feature area
Yoganup 215 mineral sands mine - Mining Lease 70/401	2007/3225	Controlled Action	Completed	In buffer area only
Not controlled action				
Aerial application of mosquito larvicides to Vasse Wonnerup Wetlands, WA	2016/7780	Not Controlled Action	Completed	In buffer area only
Albemarle Lateral Gas Pipeline, Kemerton, WA	2019/8387	Not Controlled Action	Completed	In buffer area only
Benger Solar Farm Connection Project - WA	2020/8763	Not Controlled Action	Completed	In buffer area only
Bunbury Water Resources Recovery Scheme-Recycled Water Treatment Plant	2021/8986	Not Controlled Action	Completed	In buffer area only
Clearing 5.4ha of native vegetation for sand extraction	2012/6592	Not Controlled Action	Completed	In buffer area only
Dardanup Residue Disposal Facility, WA	2015/7448	Not Controlled Action	Completed	In buffer area only
Extension of Brittain Road to connect with the South Western Hwy/Robertson Drive intersection	2007/3707	Not Controlled Action	Completed	In buffer area only
Extension of commercial sand extraction operation, Shire of Capel WA	2003/1250	Not Controlled Action	Completed	In buffer area only
Extension of Existing Sand Mining Operations Yoganup West Mining Leases ML70/672	2003/1119	Not Controlled Action	Completed	In buffer area only
Gravel extraction on Lot 305 Gravel Pit Road Henty, WA	2013/6750	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
INDIGO Central Submarine Telecommunications Cable	2017/8127	Not Controlled Action	Completed	In feature area
Industrial development, Lot 561 Paris Road, Australind, WA	2016/7712	Not Controlled Action	Completed	In buffer area only
Kemerton Lateral Gas Pipeline Project	2005/2388	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Kemerton Renewable Energy Node Switchyard KEREN Switchyard	2021/9072	Not Controlled Action	Completed	In buffer area only
larvaciding of potential mosquito breeding wetlands	2006/2601	Not Controlled Action	Completed	In buffer area only
New automotive centre at the Southwest Institute of Technology, Bunbury, WA	2010/5766	Not Controlled Action	Completed	In buffer area only
Proposal to widen Harris Road within the Shire of Dardanup, WA	2013/6934	Not Controlled Action	Completed	In buffer area only
Proposed Fuel Reduction Burn, Loughton Park, Bunbury, WA	2014/7148	Not Controlled Action	Completed	In buffer area only
Replacement Floodgates	2003/1010	Not Controlled Action	Completed	In buffer area only
Residential development, Lot 54 Vittoria Road, Glen Iris, WA	2018/8308	Not Controlled Action	Completed	In buffer area only
Residential development, Lots 120-121 Minninup Road, Dalyellup WA	2018/8254	Not Controlled Action	Completed	In buffer area only
Residential Development - Assorted Lots Parade Rd, Washington Av & Bussell Hwy, Usher WA	2013/6935	Not Controlled Action	Completed	In buffer area only
Residential Subdivision Lot 9000 Livingstone Heights	2011/6168	Not Controlled Action	Completed	In buffer area only
Residential Subdivision on Lot 5 Garvey Road, Crooked Brook	2012/6690	Not Controlled Action	Completed	In buffer area only
Road alignment construction	2001/456	Not Controlled Action	Completed	In buffer area only
Sand Extraction, Lot 265 Ducane Road, Gelorup, WA	2012/6616	Not Controlled Action	Completed	In buffer area only
Secondary School Campus Development at Lot 150 Leisure Drive, Australind	2013/6744	Not Controlled Action	Completed	In buffer area only
South Western Highway Reconstruction between Waterloo and Hynes Roads, Waterloo	2010/5617	Not Controlled Action	Completed	In buffer area only
South Western Highway - Wokalup to Brunswick Junction - Upgrade	2001/325	Not Controlled Action	Completed	In buffer area only
Stanley Road waste management facility, Wellesley, WA	2014/7131	Not Controlled Action	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Titanium Mining	2001/340	Not Controlled Action	Completed	In buffer area only
Twin Rivers Residential Subdivision	2005/2168	Not Controlled Action	Completed	In buffer area only
Vegetation Clearance for Horticulture Operation Expansion, Lot 2, Springfield Rd, Parkfield, WA	2014/7196	Not Controlled Action	Completed	In buffer area only
Vegetation clearing for industrial development	2013/6960	Not Controlled Action	Completed	In buffer area only
Western Extension to the Dardanup Mineral Sands Project	2008/4673	Not Controlled Action	Completed	In buffer area only
Woodcrest Rise Estate Residential Development	2007/3794	Not Controlled Action	Completed	In buffer area only
Not controlled action (particular manner)				
2D seismic survey	2008/4493	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Aerial Mosquito Spraying Vasse-Wonnerup System	2005/1952	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Australind Piggery expansion	2014/7117	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construct and operate a 132kV transmission line and upgrade Kemerton Terminal Si	2008/4484	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construction of new bridge (Bridge 5370) across the Collie River, Eaton, WA	2016/7657	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Construction of urea production plant and supporting infrastructure	2009/5067	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Dalyellup Beach Estate Stages 12 and 14, near Bunbury	2004/1726	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Dalyellup Beach Estate - Stages 13 and 16	2006/3075	Not Controlled Action	Post-Approval	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action (particular manner)				
		(Particular Manner)		
Donnybrook Kojonup Road (M013) widening and associated works, WA	2015/7605	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
INDIGO Marine Cable Route Survey (INDIGO)	2017/7996	Not Controlled Action (Particular Manner)	Post-Approval	In feature area
McCourt Hills Estate Stage 3	2006/2760	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Sand and Limestone Extraction on Lots 313 and 314, Harewoods Road	2005/2346	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Stratham Park Estate Subdivision - Lots 70, 11 and 12	2008/4068	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Titanium mineral sands from M70/895 and M70/899	2005/2031	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Waterloo to Busselton 132kV Transmission Line	2002/816	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Widening of Ludlow North Road Between Peppermint Grove Road and Mallokup Road	2009/5242	Not Controlled Action (Particular Manner)	Post-Approval	In buffer area only
Referral decision				
Bunbury Port Berth 14 Development, Bunbury Port Inner Harbour	2011/6023	Referral Decision	Completed	In buffer area only
Bunbury Water Resource Recovery Scheme - Stage 2 Pipeline	2022/9145	Referral Decision	Referral Publication	In buffer area only
Bunbury WRRS - Stage 2 Pipeline	2021/9092	Referral Decision	Completed	In buffer area only
Harvesting of Pinus Radiata Plantation	2010/5414	Referral Decision	Completed	In buffer area only

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Referral decision				
Residential development, Lot 71 Spurr Street, Capel, WA	2017/8128	Referral Decision	Completed	In buffer area only
Residential Subdivision, Location 871 Goodwood Rd and Lot 1181 Hawley Rd, Capel	2008/4090	Referral Decision	Completed	In buffer area only
Residential subdivision and development	2007/3711	Referral Decision	Completed	In buffer area only

Key Ecological Features [Resource Information]

Key Ecological Features are the parts of the marine ecosystem that are considered to be important for the biodiversity or ecosystem functioning and integrity of the Commonwealth Marine Area.

Name	Region	Buffer Status
Commonwealth marine environment within and adjacent to Geographe Bay	South-west	In buffer area only
Western rock lobster	South-west	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Seabirds			
Ardenna carneipes Flesh-footed Shearwater [82404]	Aggregation	Known to occur	In buffer area only
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging (in high numbers)	Known to occur	In buffer area only
Eudyptula minor Little Penguin [1085]	Foraging (provisioning young)	Known to occur	In buffer area only
Onychoprion anaethetus Bridled Tern [82845]	Foraging (in high numbers)	Known to occur	In buffer area only
Puffinus assimilis tunneyi Little Shearwater [59363]	Foraging (in high numbers)	Known to occur	In buffer area only
Sternula nereis Fairy Tern [82949]	Foraging (in high numbers)	Known to occur	In buffer area only
Whales			

Scientific Name	Behaviour	Presence	Buffer Status
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Distribution	Known to occur	In buffer area only
Balaenoptera musculus brevicauda Pygmy Blue Whale [81317]	Migration	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration (north)	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration (north and south)	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration (south)	Known to occur	In buffer area only

Caveat

1 PURPOSE

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

The report contains the mapped locations of:

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

2 DISCLAIMER

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

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

3 DATA SOURCES

Threatened ecological communities

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

Threatened, migratory and marine species

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

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

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

4 LIMITATIONS

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

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

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

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

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

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

Acknowledgements

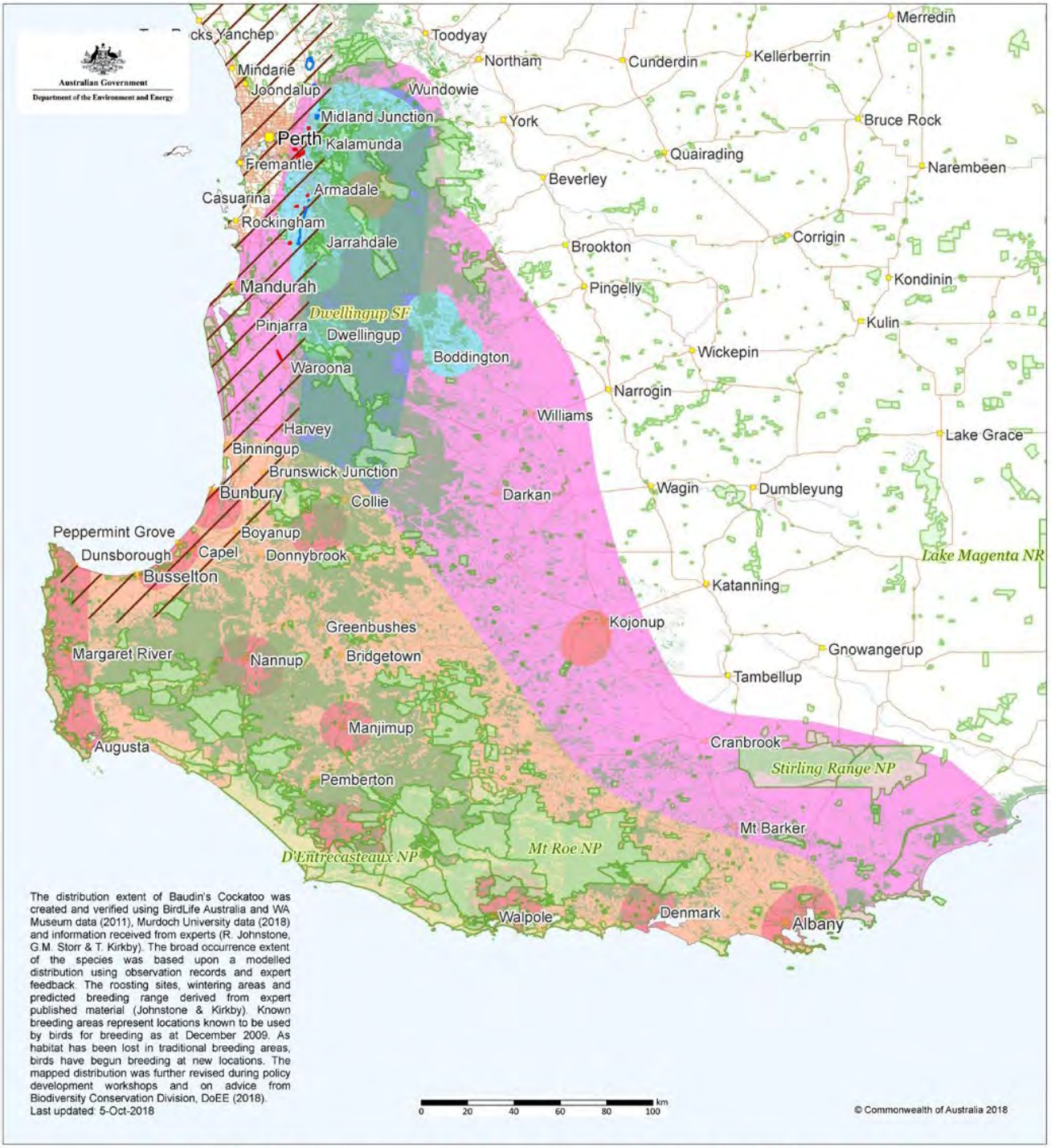
This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

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

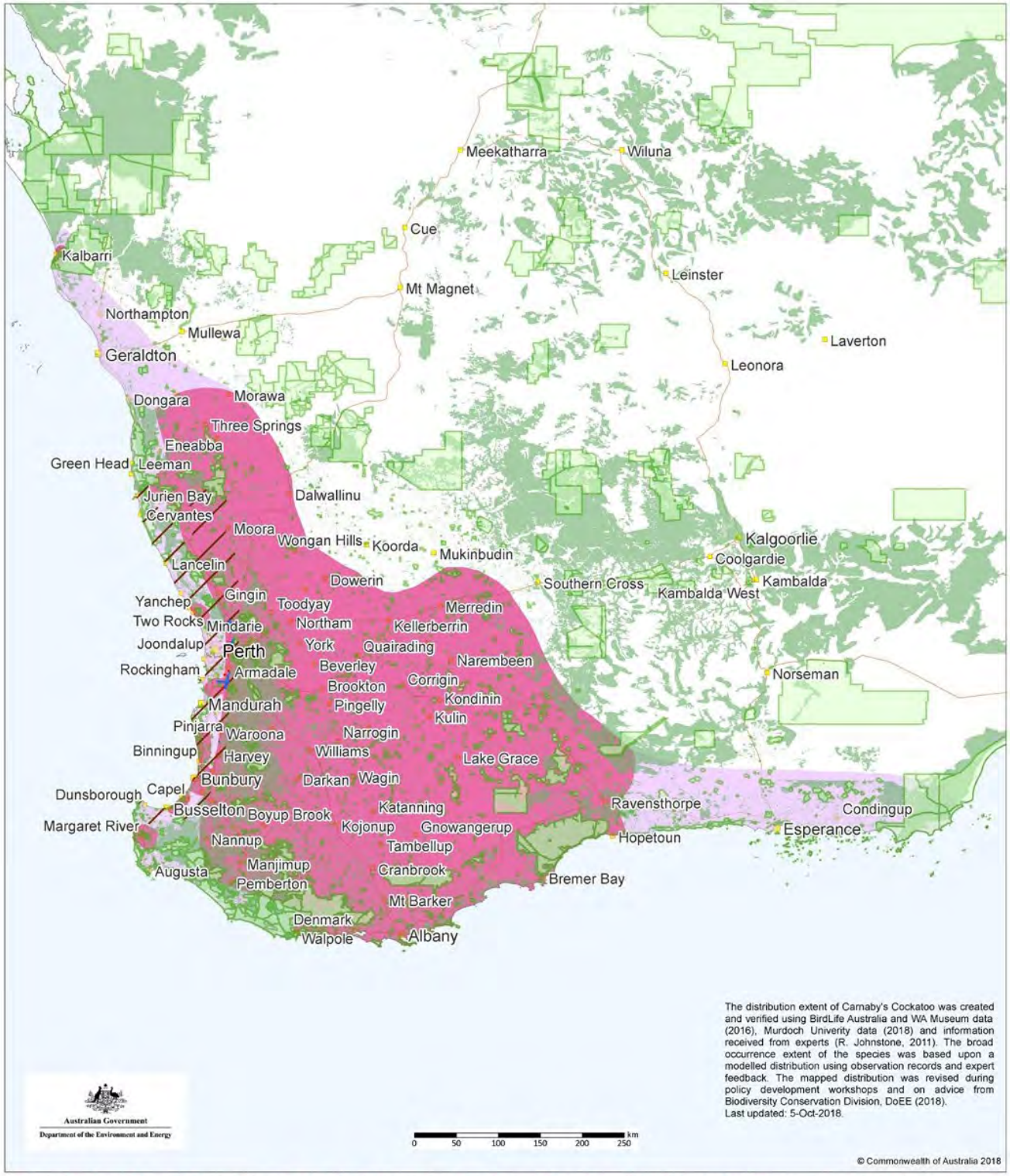
The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Appendix 3: Black Cockatoo Distribution Maps

Map 2 Modelled distribution for Baudin's Cockatoo (*Zanda baudinii*)



Map 3 Modelled distribution for Carnaby's Cockatoo (*Zanda latirostris*)



INDICATIVE MAP ONLY: For the latest departmental information, please refer to the Protected Matters Search Tool and the Species Profiles & Threats Database at http://www.environment.gov.au/biodiversity/threatened/index.html

Produced by:
Environmental Resources Information Network 2018

Contextual data source:
National Vegetation Information System (NVIS 5.1) 2018
Interim Biogeographic Regionalisation for Australia (IBRA) version 7 2012
Collaborative Australian Protected Area Database (CAPAD) 2016
Geoscience Australia GEODATA TOPO 250K Topographic Data Series 3 2006

Projection: Geographic
Datum: GDA94

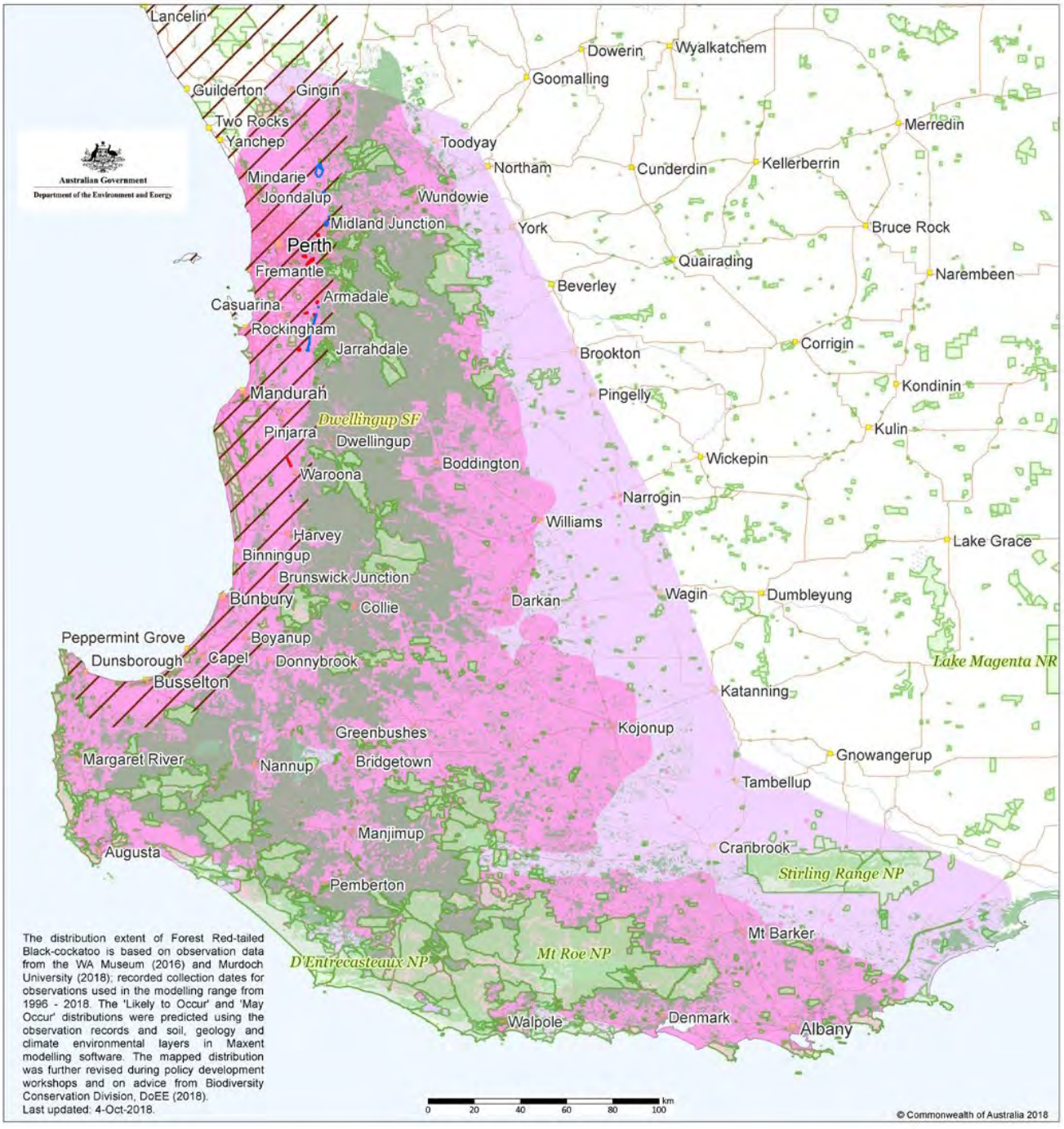
Conservation Areas
Jarrah, Karri, Marri, Salmon Gum, Wandoo, Banksia, Grevillea, Dryandra and Hakea

Species
Breeding Range
Non-breeding Range

Ecological Communites
Corymbia calophylla - Xanthorrhea preissii woodlands and shrublands of the Swan Coastal Plain
Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain
Banksia Woodlands of the Swan Coastal Plain

Cities & Towns
Roads (sealed)
Roads (unsealed)
State Border

Map 4 Modelled distribution for Forest Red-tailed Black-Cockatoo (*Calyptorhynchus banksii naso*)



The distribution extent of Forest Red-tailed Black-cockatoo is based on observation data from the WA Museum (2016) and Murdoch University (2018); recorded collection dates for observations used in the modelling range from 1996 - 2018. The 'Likely to Occur' and 'May Occur' distributions were predicted using the observation records and soil, geology and climate environmental layers in Maxent modelling software. The mapped distribution was further revised during policy development workshops and on advice from Biodiversity Conservation Division, DoEE (2018).
Last updated: 4-Oct-2018.

INDICATIVE MAP ONLY: For the latest departmental information, please refer to the Protected Matters Search Tool and the Species Profiles & Threats Database at http://www.environment.gov.au/biodiversity/threatened/index.html

Produced by:
Environmental Resources Information Network 2018

Contextual data source:
National Vegetation Information System (NVIS 5.1) 2018
Interim Biogeographic Regionalisation for Australia (IBRA) version 7 2012
Collaborative Australian Protected Area Database (CAPAD) 2016
Geoscience Australia GEODATA TOPO 250K Topographic Data Series 3 2006

Projection: Geographic
Datum: GDA94

Conservation Areas
Jarrah, Karri and Marri

Species
Likely to Occur
May Occur

Ecological Communities
Corymbia calophylla - Xanthorrhea preissii woodlands and shrublands of the Swan Coastal Plain
Corymbia calophylla - Kingia australis woodlands on heavy soils of the Swan Coastal Plain
Banksia Woodlands of the Swan Coastal Plain

Cities & Towns
Roads (sealed)
Roads (unsealed)
State Border
Major Rivers
Lakes/Reservoirs
Non-perennial Lakes

Appendix 4: Black Cockatoo Potential Breeding Trees

Tree No.	Species	Common Name	Easting	Northing	DBH Size (mm)	No. of Suitable Hollows	Notes
1	*Corymbia calophylla*	Marri	376257	6299494	115	0	
2	*Eucalyptus marginata*	Jarrah	376296	6299519	56	0	
3	*Corymbia calophylla*	Marri	376240	6299515	78	0	Splits multiple times at 2m
4	*Corymbia calophylla*	Marri	376200	6299515	121	0	Three large trunks
5	*Eucalyptus marginata*	Jarrah	376077	6299544	51	0	
6	*Eucalyptus marginata*	Jarrah	376081	6299542	88	0	
7	*Corymbia calophylla*	Marri	376117	6266542	76	0	Splits at 3.5m
8	*Corymbia calophylla*	Marri	376119	6299545	89	0	
9	*Corymbia calophylla*	Marri	376114	6299561	71	0	
10	*Corymbia calophylla*	Marri	376113	6299560	70	0	
11	*Eucalyptus marginata*	Jarrah	376104	6299527	81	0	Many branches
12	*Corymbia calophylla*	Marri	376094	6299515	75	0	
13	*Corymbia calophylla*	Marri	376078	6299508	87	0	
14	*Eucalyptus marginata*	Jarrah	376068	6299510	95	0	
15	*Corymbia calophylla*	Marri	376078	6299502	51	0	
16	*Corymbia calophylla*	Marri	376082	6299491	54	0	
17	*Corymbia calophylla*	Marri	376082	6299489	59	0	
18	*Corymbia calophylla*	Marri	376079	6299485	60	0	
19	*Corymbia calophylla*	Marri	376062	6299489	75	0	Splits at 2 m. photo at 11.39
20	*Corymbia calophylla*	Marri	376054	6299479	61	0	
21	*Corymbia calophylla*	Marri	376058	6299476	71	0	
22	*Corymbia calophylla*	Marri	376068	6299474	65	0	
23	*Corymbia calophylla*	Marri	376068	6299457	70	0	
24	*Corymbia calophylla*	Marri	376077	6299462	105	0	Broken off at top at 6m
25	*Eucalyptus marginata*	Jarrah	376094	6299469	60	0	
26	*Corymbia calophylla*	Marri	376092	6299464	59	0	
27	*Corymbia calophylla*	Marri	376104	6299466	116	0	Beehive present
28	*Eucalyptus marginata*	Jarrah	376105	6299480	56	0	
29	*Corymbia calophylla*	Marri	376109	6299485	96	0	
30	*Eucalyptus marginata*	Jarrah	376121	6299441	68	0	
31	*Eucalyptus marginata*	Jarrah	376137	6299446	66	0	
32	*Eucalyptus marginata*	Jarrah	376138	6299457	71	0	
33	*Corymbia calophylla*	Marri	376142	6299427	90	0	
34	*Eucalyptus marginata*	Jarrah	376170	6299382	84	0	
35	*Eucalyptus marginata*	Jarrah	376099	6299375	89	0	
36	*Corymbia calophylla*	Marri	376077	6299361	90	0	
37	*Corymbia calophylla*	Marri	376077	6299370	119	0	
38	*Eucalyptus marginata*	Jarrah	376069	6299405	75	0	
39	*Eucalyptus marginata*	Jarrah	376228	6299361	143	0	Dying
40	*Corymbia calophylla*	Marri	376242	6299347	99	0	

41	*Corymbia calophylla*	Marri	376249	6299342	96	0	
42	*Corymbia calophylla*	Marri	376258	6299329	69	0	
43	*Corymbia calophylla*	Marri	376258	6299339	129	0	
44	*Corymbia calophylla*	Marri	376262	6299375	52	0	
45	*Corymbia calophylla*	Marri	376280	6299383	59	0	
46	*Eucalyptus marginata*	Jarrah	376295	6299406	98	0	Dying
47	*Corymbia calophylla*	Marri	376217	6299438	73	0	
48	*Corymbia calophylla*	Marri	376208	6299453	96	0	
49	*Eucalyptus marginata*	Jarrah	376245	6299123	112	0	
50	*Eucalyptus marginata*	Jarrah	376188	6299119	185	0	Hollow and burnt all through the base
51	*Eucalyptus marginata*	Jarrah	376146	6299140	65	0	
52	*Eucalyptus marginata*	Jarrah	376186	6299171	200+	0	Hollow and burnt all through the base.
53	*Eucalyptus marginata*	Jarrah	376287	6299111	150	0	
54	*Eucalyptus marginata*	Jarrah	376310	6299146	200+	0	Snapped at 4m
55	*Eucalyptus marginata*	Jarrah	376357	6299161	200+	0	
56	*Eucalyptus marginata*	Jarrah	376438	6299162	89	0	Two large trunks
57	*Eucalyptus marginata*	Jarrah	376480	6299154	125	0	Hollow and burnt all through the base
58	*Eucalyptus marginata*	Jarrah	376436	6299185	103	0	
59	*Eucalyptus marginata*	Jarrah	376335	6299180	86	0	
60	*Corymbia calophylla*	Marri	376068	6298794	113	0	
61	*Corymbia calophylla*	Marri	376064	6298774	58	0	
62	*Corymbia calophylla*	Marri	376063	6298760	79	0	
63	*Corymbia calophylla*	Marri	376056	6298760	87	0	
64	*Corymbia calophylla*	Marri	376052	6298765	76	0	
65	*Corymbia calophylla*	Marri	376067	6298738	56	0	
66	*Corymbia calophylla*	Marri	376066	6298735	57	0	
67	*Eucalyptus marginata*	Jarrah	376069	6299072	82	0	Two large trunks
68	*Eucalyptus marginata*	Jarrah	376299	6298866	106	0	
69	*Stag*	Stag	376386	6298743	125	0	Dead
70	*Eucalyptus marginata*	Jarrah	376456	6298852	95	0	
71	*Eucalyptus marginata*	Jarrah	376441	6298922	87	0	
72	*Eucalyptus marginata*	Jarrah	376467	6298969	85	0	
73	*Eucalyptus marginata*	Jarrah	376458	6298906	121	0	
74	*Eucalyptus marginata*	Jarrah	376480	6299273	161	0	
75	*Eucalyptus marginata*	Jarrah	376497	6299286	121	0	

Appendix 5: Potential Breeding Tree Photographs (examples)

Plate 3: Jarrah tree (DBH > 500 mm)

Plate 4: Marri tree (DBH > 500 mm)

Plate 5: Marri tree (DBH > 500 mm)

Plate 6: Marri tree (DBH > 500 mm)

Appendix I – Groundwater Monitoring Report

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To :	BCP Materials Pty Ltd (c/o – Element)	**Date :**	19 Dec 2022
Attention :	Daniel Lewis (Element)	**Our Ref :**	J7247a
Email :	daniel@harleydykstra.com.au	**Pages :**	16

LOT 1 HAIR PLACE, NORTH BOYANUP
GROUNDWATER LEVEL MONITORING – JULY TO OCTOBER 2022

Dear Daniel,

Please find below summary of JDA groundwater level monitoring performed at Lot 1 Hair Place, North Boyanup from July 2022 to October 2022. This report is presented in the following sections:

1. *Introduction*
2. *Study Area Characteristics*
3. *Climate*
4. *Monitoring Layout*
5. *Monitoring Results and Analysis*
6. *Maximum Groundwater Level*
7. *Conclusions*

1. INTRODUCTION

Lot 1 Hair Place, North Boyanup, Figure 1, and herein referenced to as the Study Area, is located within the Shire of Capel and covers an area of 46.4 ha. JDA understands that the Study Area is proposed for sand extraction within existing cleared areas as part of a future application for an Extractive Industries Licence (EIL).

To support a potential future EIL application, JDA was appointed by BCP Materials Pty Ltd to supervise the installation of monitoring bores, conduct groundwater level monitoring between July and October 2022 and determine maximum groundwater levels across the Study Area.

Presented below is a summary of JDA's groundwater level monitoring and determination of maximum groundwater levels across the Study Area.

2. STUDY AREA CHARACTERISTICS

Topographic contours of the Study Area indicate the majority of the site is between 24 to 27 mAHD, Figure 2 *left*. There is a mound in the north-east corner at 40 mAHD grading south to east in the upper section of the Study Area, with a shallow ridge along the eastern boundary and through the centre of the Study Area.

The surface geology of the Study Area and surrounding areas is Bassendean Sand (Qpb) or "Thin Bassendean Sand over Guildford Formation" (Qpb/Qpa). The Bassendean Sand in the Greater Bunbury area interfingers with the Guildford Formation (Qpa) and underlies small dunes derived from Bassendean Sand (Baddock et al., 2014).

The Study Area is within the Five Mile Brook surface water catchment which discharges north-west of the Study Area. Mapped surface water channels by Department of Water & Environmental Regulation (DWER) are shown on Figure 2 *right* with O'Neils Drain traversing east to west approximately 400 m south of the Study Area. There are no mapped wetlands or surface water features within the Study Area, Figure 2 *right*. Wetlands in surrounding areas generally align with mapped surface water channels or surface expressions of the Guildford Formation and peaty swamp deposits.

Regional groundwater flow direction is generally east to west/north-west towards the Ocean or Peel Inlet (Commander, 1984). Region-scale groundwater contours in Commander (1984) suggest a groundwater level of approximately 22 mAHD across the Study Area.

3. CLIMATE

The Boyanup area is characterised by a Mediterranean climate with warm dry summers and cool wet winters.

Rainfall data is provided by three Bureau of Meteorology (BoM) rainfall gauging stations, namely *Boyanup WA* (009503, 1889-2003); *Boyanup North* (009990, 2004-2022); and *Marriwood* (009629, 1960-2022); Figure 3. The Boyanup rain gauges are located 6 to 7 km south-east of the Study Area. The Marriwood rain gauge (Site ID. 009648), Figure 3, is located closest to the Study Area, 5.5 km west, but has a shorter rainfall record to Boyanup. In general, Marriwood annual rainfall totals are similar or slightly higher than that recorded at Boyanup.

The average annual rainfall, 1889 to 2020, for Boyanup is 935 mm, with 30-year and 10-year averages of 813 mm and 821 mm, respectively. This represents a 13% (30-year average) and 12% (10-year average) decrease from the long-term average annual rainfall. The 30-year and 10-year averages for Marriwood are 840 mm and 822 mm, respectively. There has been a noticeable decline in annual rainfall since the 1970s which is consistent with the trend across south-west Western Australia (DoW, 2015). The seasonal rainfall distribution has also altered with a reduction of average monthly totals in the winter months, but no reduction in summer months.

Rainfall recorded to end-November in 2022 was 787.8 mm at Boyanup North (Site ID. 009990) and 836 mm at Marriwood (Site ID. 009629), similar to the 30-year average annual rainfalls.

Pan evaporation is provided by the Department of Primary Industries and Regional Development (DPIRD) Dardanup (Waterloo) weather station where annual pan evaporation generally ranged between 1,400 and 1,200 mm for the 2011 to 2021 period with an average around 1,780 mm. This is slightly higher than the estimated pan evaporation in Luke (1987) of 1,550 mm.

4. MONITORING LAYOUT

4.1 Study Area Groundwater Monitoring Bores

0n 28 and 29 July 2022, six groundwater monitoring bores, NB01 to NB05 on Figure 4, were installed across the Study Area by Edrill Environmental and supervised by JDA. Drilling continued until an impermeable layer was reached or to a maximum of 6 m depth. A nested bore (shallow and deep) was installed at NB04 (NB04S and NB04D) as a band of clayey sand was encountered approximately 5.5 m below surface. Bores NB04S and NB04D were screened above or within and below the clayey sand band. All bores were constructed with 50 mm Class 18 threaded PVC, screened in the lowest 1.5 to 3 m and finished with gravel pack and bentonite seal.

Bore details are provided in Table 1 and locations shown on Figure 4.

Odyssey capacitance water level loggers were installed in all 6 bores on 29 July 2022. Static groundwater levels were recorded at 1 hour intervals by the water level loggers and verified on-site via manual still water level measurements using an electrical depth probe. Loggers were downloaded on 01 November 2022.

The HYDSTRA data management system was used to store, process and analyse water level data recorded by the Odyssey capacitance loggers.

4.2 DWER Monitoring Bores

Nearby long-term DWER bores, generally drilled as part of the Bunbury or Busselton shallow-drilling groundwater investigations, are screened within either the Leederville or Yarragadee aquifers. The next closest continuously monitored superficial aquifer bore is EW03B, location shown on Figure 5. The target area bores and EW03B are approximately 9.2 to 10 km from the ocean. The 'EW' series of bores were installed as part of an ecological water requirements study of wetland vegetation in the south-west. This bore is fitted with a logger and has been processed and reported by DWER up to 30 June 2022 (DWER, 2022).

DWER bore DMP4B is located 500 m west of the Study Area. The 'DMP' series of bores were installed in late-2013 to collect groundwater level data for validation of the Greater Bunbury region MIKE-SHE groundwater model. The

intent of the groundwater model was to detail major regional surface water and groundwater processes and development and climate impacts; and was support a future drainage and water management plan [DWMP] for the region. JDA understands there is presently no intention of preparing a DWMP for the Greater Bunbury region. DWER bore DMP4B has not been monitored by DWER since December 2016. JDA has conducted manual still water level measures at DMP4B to inform groundwater levels across the Study Area.

Another DWER bore, DMP3B, is located 1.3 km east of the Study Area. This bore is located east of a surface expression of groundwater on an outcrop of the Guildford Formation and which discharges to O'Neils Drain, Figure 2 *right*. Groundwater levels at this bore will be locally influenced by these surface water features and therefore this bore has not been monitored by JDA.

JDA requested and was granted permission to access both DWER bores DMP4B and EW03B with manual still water level measurements taken during site visits. No manual measurements are shown on *Water Information Reporting* (WIR) for EW03B since 2010. It is likely manual measurements would have been conducted during logger downloads to verify the logger data, however, no such record was shown on WIR (DWER, 2022).

TABLE 1: GROUNDWATER MONITORING BORE DETAILS

Bore ID	GDA 1994 Coordinates		Natural Surface (mAHD)	Top of Casing (mAHD)	Stick-up (m)	Depth (mbNS)	Screened Interval (mbNS)	Date Constructed
	Easting	Northing						
NB01	376454	6298755	25.57	26.09	0.52	5.80	2.8-5.8	28 July 2022
NB02	376110	6298727	24.42	24.99	0.57	5.22	2.2-5.2	28 July 2022
NB03	376226	6299104	26.43	27.06	0.63	5.69	2.6-5.6	28 July 2022
NB04s	376378	6299449	26.32	26.94	0.62	5.80	2.8-5.8	29 July 2022
NB04d	376381	6299451	26.34	26.92	0.58	7.37	5.8-7.3	29 July 2022
NB05	376058	6299650	23.44	24	0.56	5.25	2.2-5.2	29 July 2022
DMP4B	375564	6298706	23.41	24.03	0.62	5	4.5-5	18 November 2013
EW03B	378754	6300895	25.80	26.30	0.50	8.5	3.1-7.6	13 February 2007

5. MONITORING RESULTS AND ANALYSIS

Logged groundwater levels are presented on Figure 6. Manually recorded groundwater levels by JDA and Edrill are presented in Table 2, with peak recorded groundwater levels during the monitoring period (July to October 2022) summarised in Table 3.

TABLE 2: MANUALLY RECORDED WATER LEVELS – JULY TO NOVEMBER 2022

Site ID	Water Level (mAHD)		
	29 July 2022 (JDA)	01 August 2022 (Edrill)	01 November 2022 (JDA)
NB01	23.43	23.50	23.53
NB02	22.68	22.75	22.84
NB03	22.67	22.73	22.93
NB04s	22.20	22.29	22.50
NB04d	22.15	22.25	22.48
NB05	20.28	20.36	20.77
DMP4B	18.79	-	19.06

TABLE 3: PEAK RECORDED GROUNDWATER LEVELS – JULY TO NOVEMBER 2022

Site ID	Date Recorded	Water Level (mAHD)	Separation to Natural Surface (m)
NB01	28 August	23.77	1.80
NB02	19 September	23.07	1.35
NB03	06 September	23.135	3.295
NB04s	-[1]	-[1]	-[1]
NB04d	13 September	22.59	3.75
NB05	09 October	20.805	2.635

Note: 1. NB04s logger failed during the monitoring period.

Across the monitoring period, groundwater levels generally rose from the commencement of monitoring (29 July 2022) to a peak in late-August to mid-September with groundwater levels within a range of ± 5 cm from mid-August to late-September. Groundwater levels thereafter generally declined to the end of the monitoring period (01 November 2022). The exception is NB05, the north-western bore, which showed groundwater levels continuing to rise till a peak in early October (20.805 mAHD); only marginally higher than 01 November 2022 manual reading of 20.77 mAHD.

Local groundwater flow direction is generally south-east to north-west, similar to the regional trend in Commander (1984). There appears to be a steeper groundwater gradient between NB05 and the other Study Area bores. Based on the bore lithological logs, Appendix A, sandy clay was encountered at NB05 at approximately 18.7 mAHD compared to the sandy clay/clayey sand in the other Study Area bores at 19.9 to 21.4 mAHD. Groundwater levels within the Study Area may influenced by the surrounding Guildford Formation which is at natural surface at elevations of 24 to 25 mAHD in the south and east and 20 to 21 mAHD to the west.

Groundwater levels peaked highest in 2022 in NB01 at 23.77 mAHD, the south-eastern most bore, and lowest in NB05 at 20.805 mAHD, the north-western most bore, Figure 6. Groundwater levels in NB02 and NB03 were relatively similar across the monitoring period, Figure 6.

Although the NB4s logger failed during the monitoring period, the manual measurements by JDA suggest there was no significant difference in groundwater levels between the nested NB4 bores, Table 2. Rainfall recorded within the period did not significantly impact groundwater levels with rises in response to individual rainfall events generally less than 0.05 m, Figure 6.

6. MAXIMUM GROUNDWATER LEVEL (MGL)

Water level time series logger data for DWER bore EW03B is presented on Figure 7 for the period 16 February 2009 to 30 June 2022. The calculated AAMGL for EW03B, 2011 to 2021, is 24.70 mAHD. Due to operational issues, the logger is unlikely to have recorded the groundwater peaks in 2009 and 2010 thus these years were excluded from the AAMGL calculation. The Maximum Groundwater Level (MGL) of 25.07 mAHD, 0.37 m above the AAMGL, was recorded on 30 August 2018 and followed approximately 97 mm of rainfall, recorded at the Boyanup rainfall gauge in the prior 72 hours.

JDA's measurement of EW03B on 01 November 2022 was 24.72 mAHD, 0.05 m above the bore AAMGL (2011-2021) but 0.35 m below the bore MGL. To estimate MGL values, a correction of +0.35 m has been applied to groundwater levels measured on 01 November 2022, Table 4.

The estimated MGL values were used to create MGL contours across the Study Area, Figure 8. Estimated MGL ranges from 24 to 21 mAHD south-east to north-west across the Study Area.

Figure 9 shows depth to MGL from natural surface across the Study Area. Separation to MGL is highest (> 5 m) at the sand mound in the north-east corner and at the shallow sand ridge through the centre and much of the eastern boundary of the Study Area. Separation to MGL through the centre of the Study Area is generally 1.5 to 2 m.

TABLE 4: ESTIMATED MAXIMUM GROUNDWATER LEVELS

Site ID	Natural Surface (mAHD)	Groundwater Level 01 November 2022	MGL Correction (m)	Estimated MGL (mAHD)	MGL Separation to Natural Surface (m)
NB01	25.57	23.53	+0.35	23.88	1.69
NB02	24.42	22.84	+0.35	23.19	1.23
NB03	26.43	22.93	+0.35	23.28	3.15
NB04s	26.32	22.50	+0.35	22.85	3.47
NB05	23.44	20.77	+0.35	21.12	2.32

7. CONCLUSIONS

JDA concludes that:

- Rainfall in 2022 to end-November was 787.8 mm at BoM's Boyanup North rain gauge and 836 mm at BoM's Marriwood rain gauge, similar to the 30-year average annual rainfalls (1992 to 2021).
- Local groundwater flow direction is generally south-east to north-west; similar to the regional groundwater trend in Commander (1984).
- Groundwater levels across the monitoring period generally peaked in late-August to mid-September, except NB05 which continued to rise until early October.

  Groundwater levels peaked highest in 2022 in NB01 at 23.77 mAHD, the south-eastern most bore, and lowest in NB05 at 20.805 mAHD, the north-western most bore. Groundwater levels in NB02 and NB03 were relatively similar across the monitoring period.

  Groundwater levels locally may be influenced by surface expressions of Guildford Formation in the south and east and to the west.
- The single nested bore within the Study Area, BOY4, showed no significant difference in recorded water levels between the shallow and deep bore.
- JDA's groundwater level measurement in DWER monitoring bore EW03B on 01 November 2022 was 24.72 mAHD, 0.05 m above the bore AAMGL (2011-2021) but 0.35 m below the bore MGL.
- The Study Area MGL was estimated by applying a correction of +0.35 m to groundwater levels recorded within the Study Area on 01 November 2022, based on correlation with DWER bore EW03B to its MGL.
- Separation to MGL from natural surface is greater than 5 m at the north-east sand mound and the shallow ridge through the centre and along much of the eastern Study Area boundary. Separation to MGL through the centre of the Study Area is generally 1.5 to 2 m.

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Attachments:

Figure 1: Location Plan

Figure 2: Existing Study Area Characteristics

Figure 3: Rainfall and Evaporation

Figure 4: Study Area Monitoring Bore Locations

Figure 5: DWER Monitoring Bores DMP4B and EW03B

Figure 6: Logged Groundwater Levels, NB01 to NB05

Figure 7: DWER Bore EW03B Groundwater Level Time-Series, AAMGL and MGL

Figure 8: Estimated Maximum Groundwater Level (MGL) Contours

Figure 9: Depth to Estimated MGL

Appendix A: JDA Bore Lithological Logs

If you have any queries on this report, please contact Matthew Yan or Michael Ioannidis.

Regards,

JDA CONSULTANT HYDROLOGISTS

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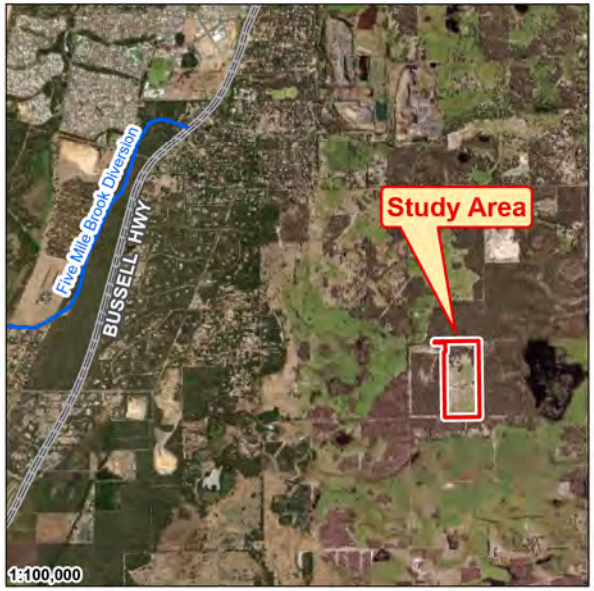

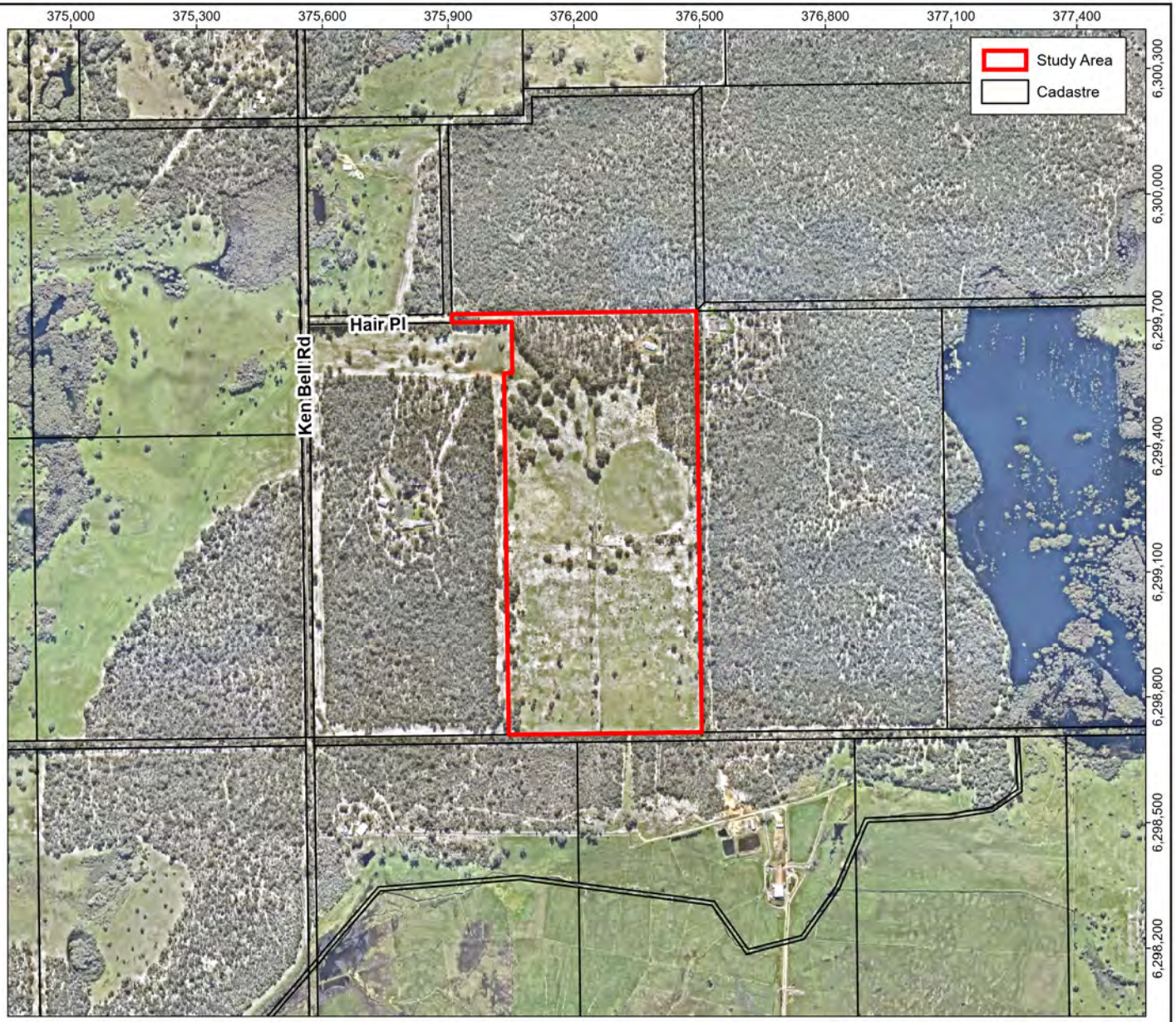

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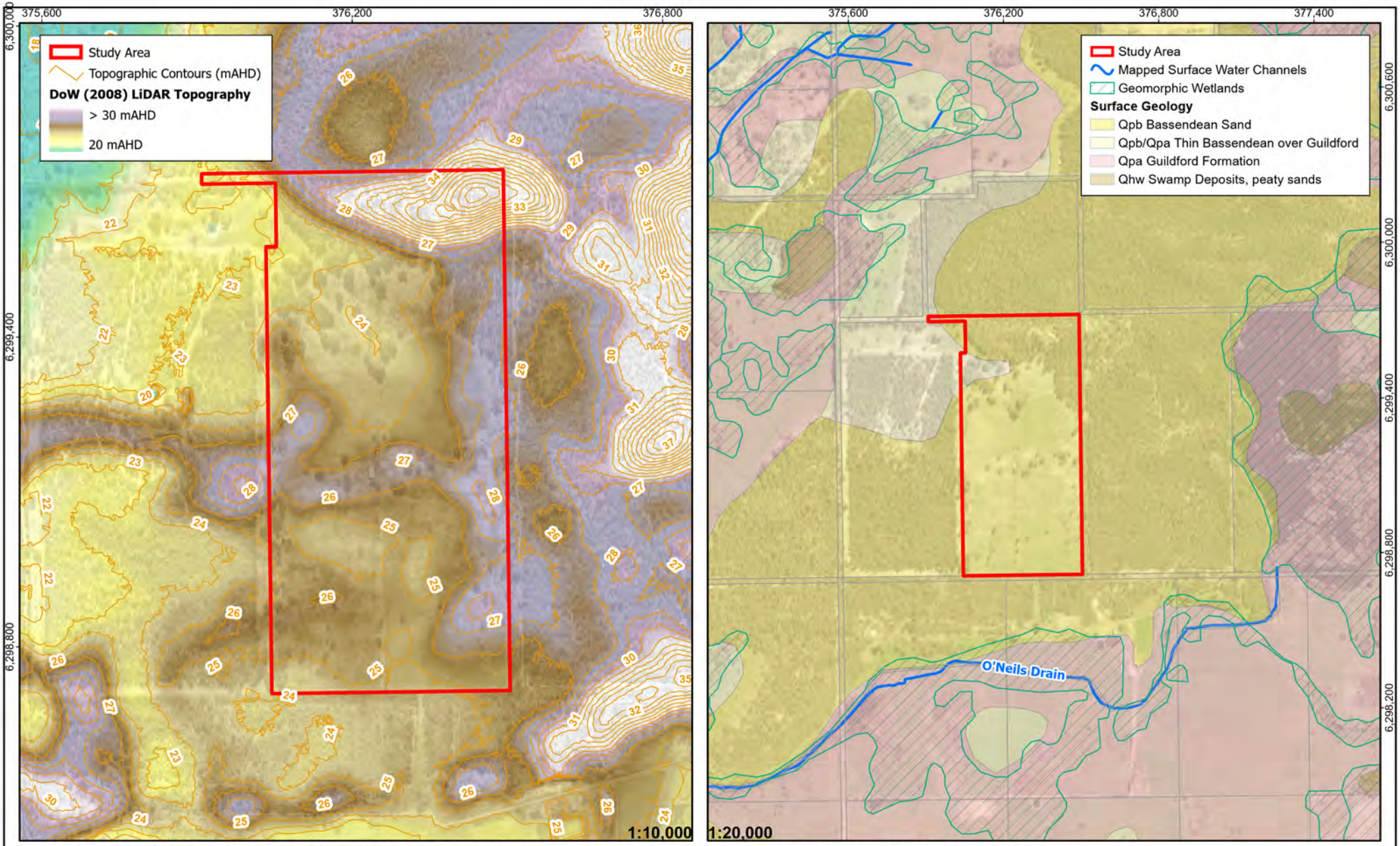
Lot 1 Hair Place, North Boyanup: Groundwater Level Monitoring

Figure 1: Location Plan



Data Source: GSWA (1982) *1: 50 000 urban geology map - Bunbury - Burekup (2031 III - 2031 II)*. Landgate (2019) *Medium Scale Topo Water Line (LGATE-018)*; NearMaps (2021); DoW (2008).

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Lot 1 Hair Place, North Boyanup: Groundwater Level Monitoring
Figure 2: Study Area Characteristics

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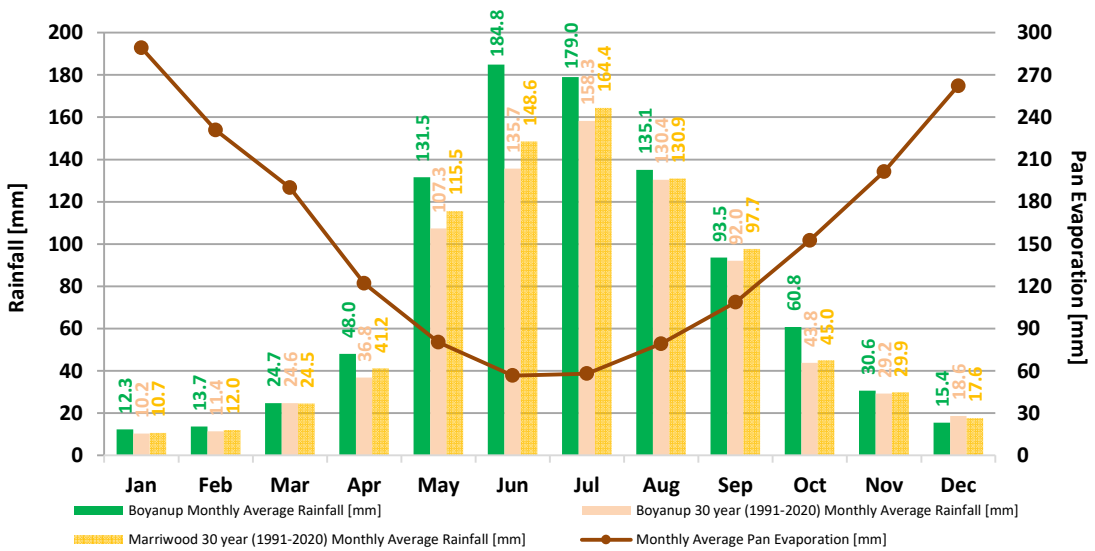

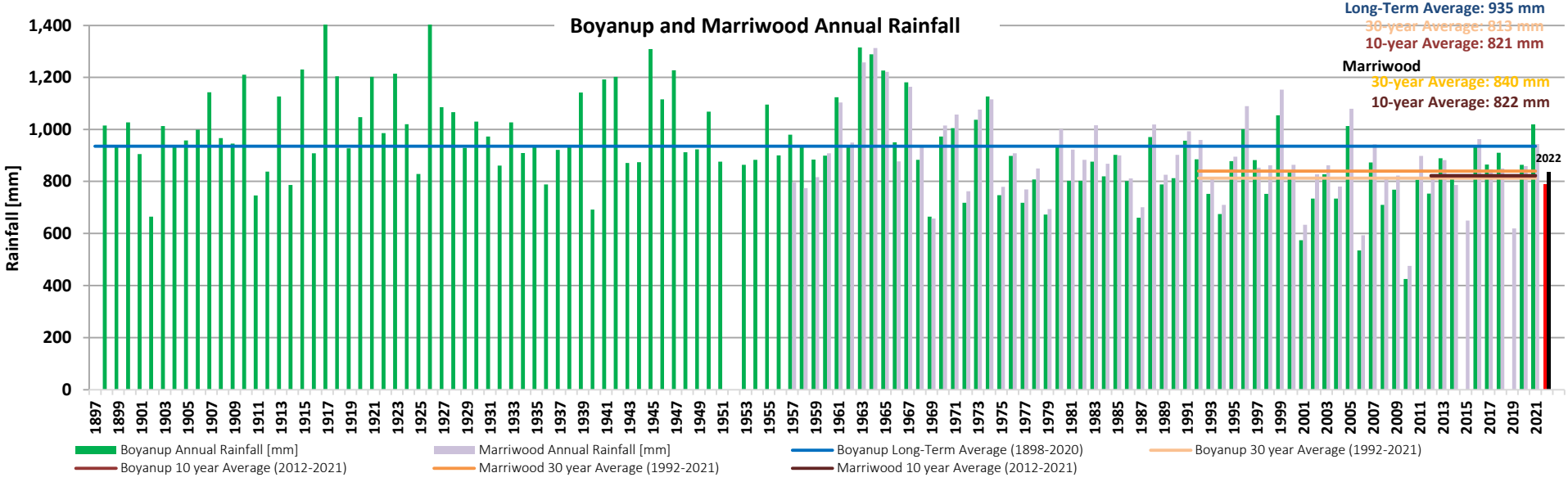

Data Source: BoM (2022) Climate Data Online Boyanup *WA (009503; 1903-2002), Boyanup North (009990; 2003-2022) and Marriwood (009629) Rain Gauges*; DPIRD (2022) *Dardanup (Waterloo) Weather Station*

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Figure 3: Rainfall and Evaporation

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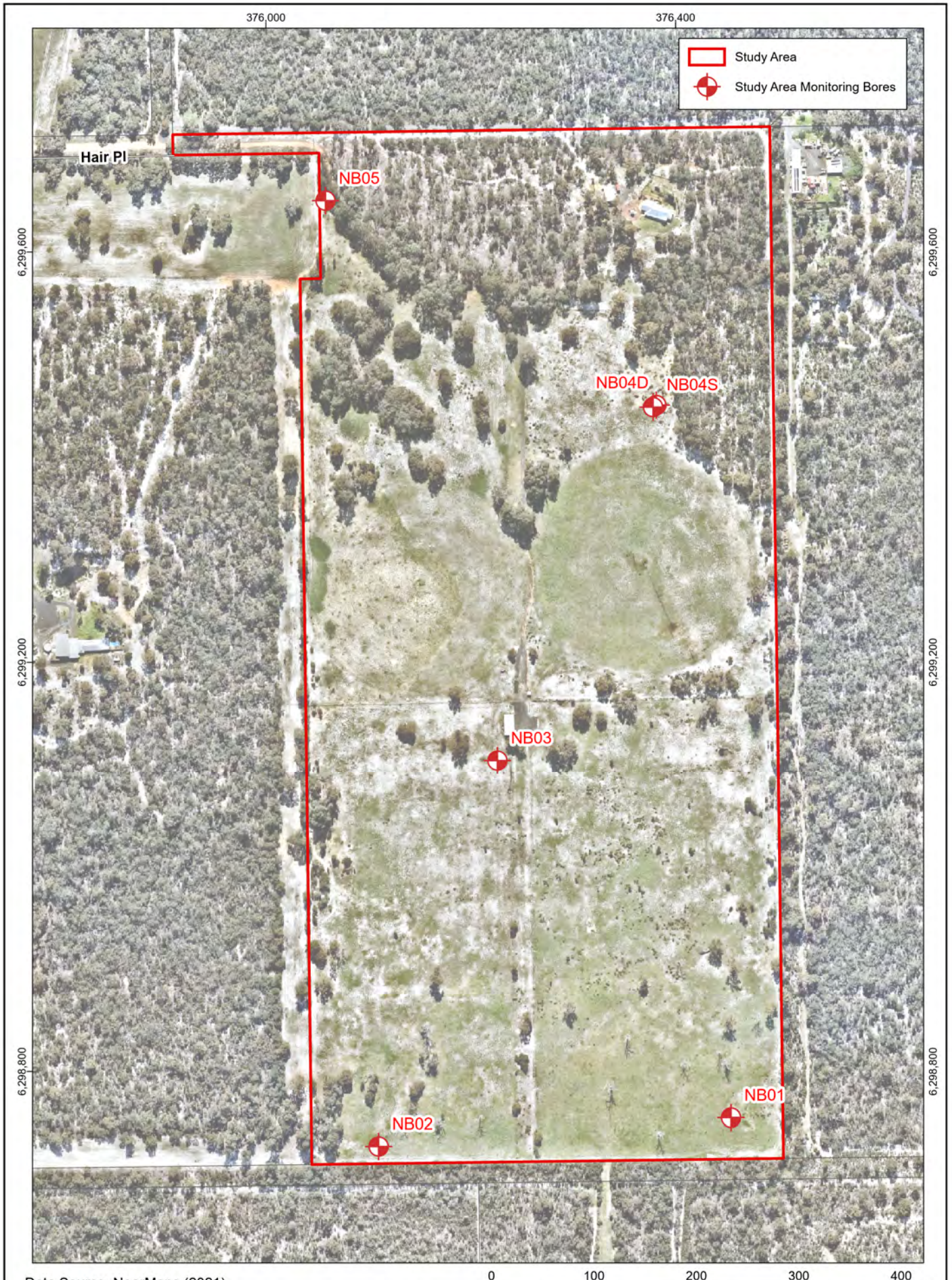

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Figure 4: Study Area Monitoring Bore Locations

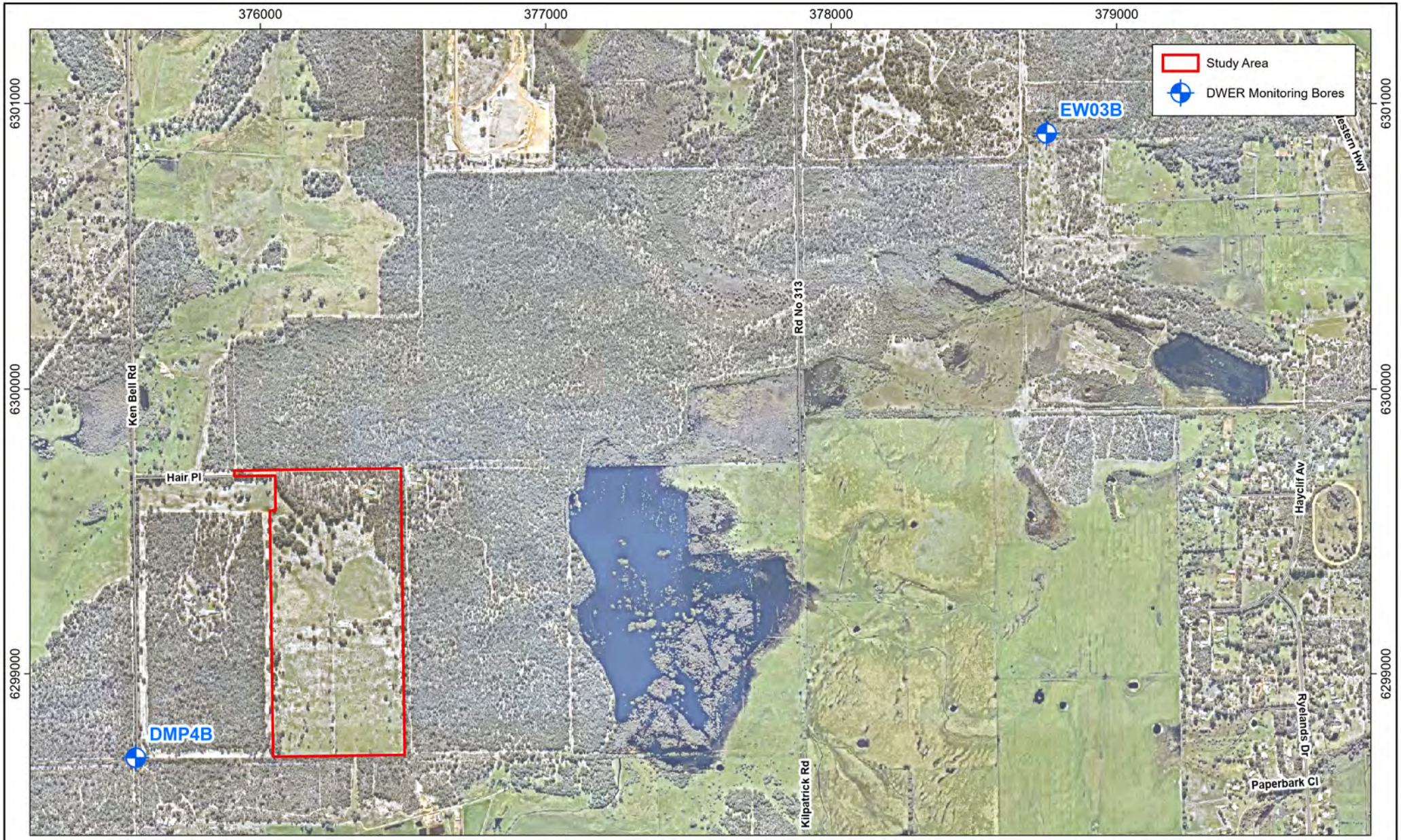

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Figure 5: DWER Bore DMP4B and EW03B Locations

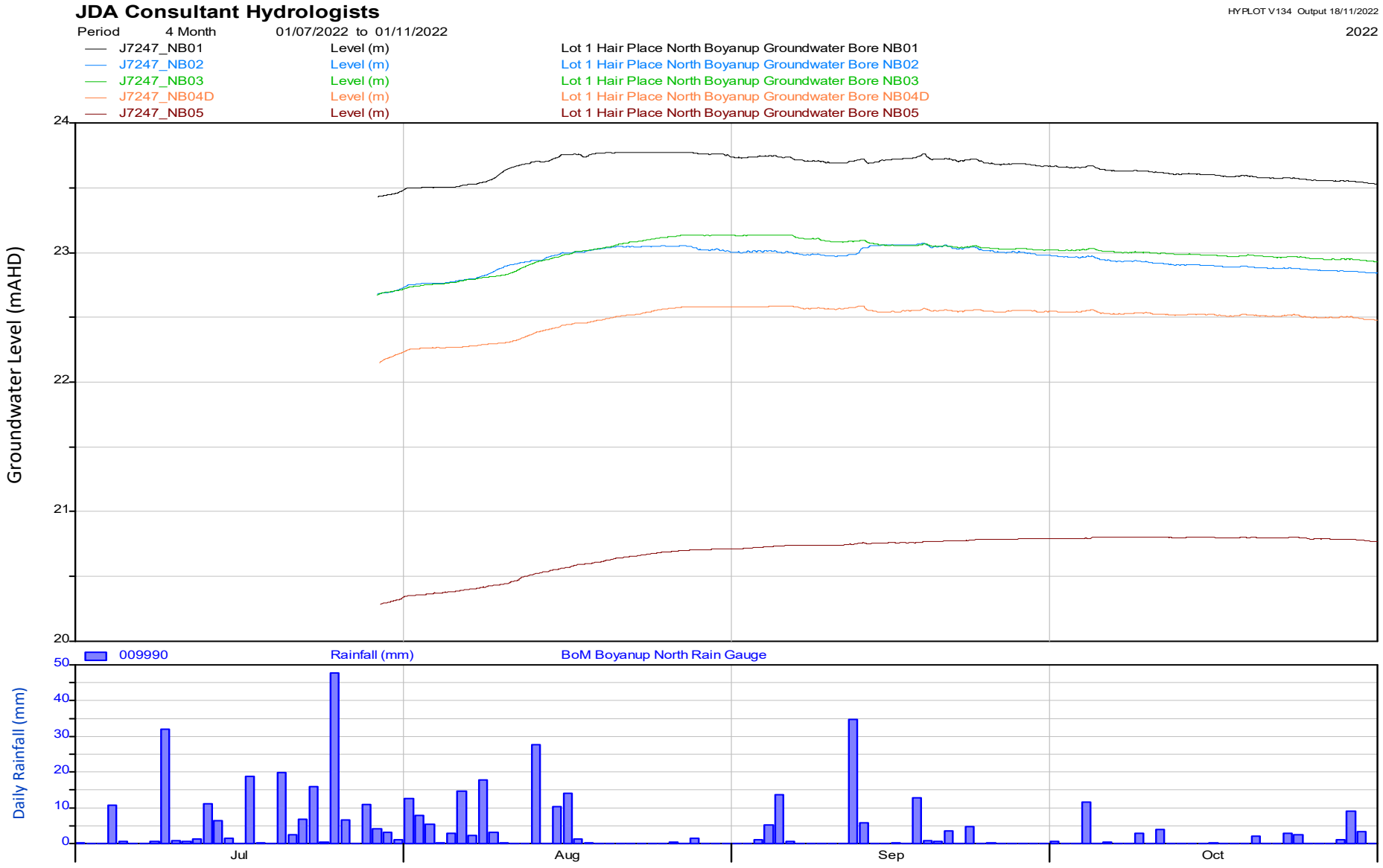

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Figure 6: Logged Groundwater Levels, NB01 to NB05

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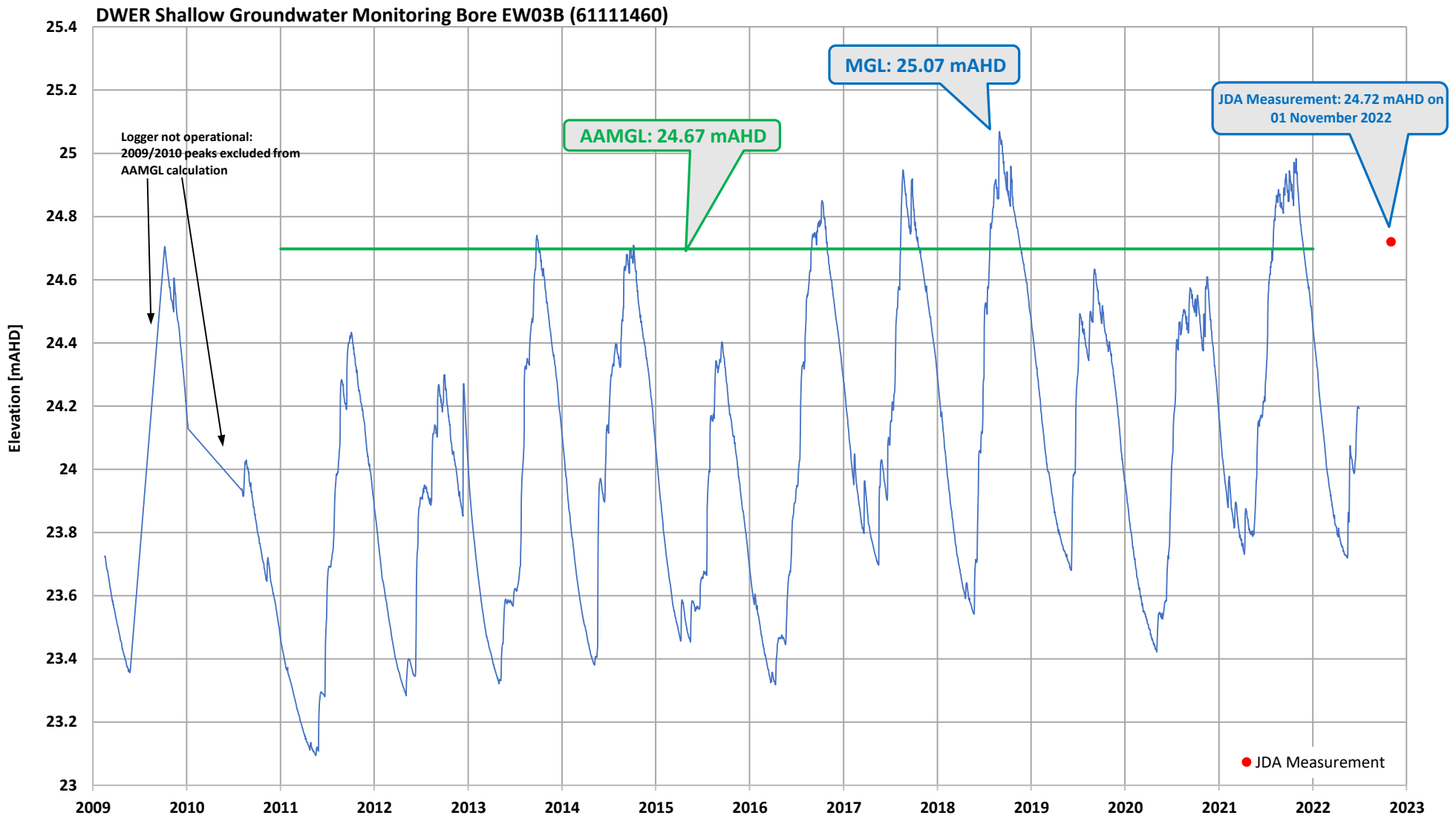

Data Source: Department of Water and Environmental Regulation Online Water Information Reporting (WIR) (DWER, 2022)

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Figure 7: DWER Bore EW03B Groundwater Level Time-Series, AAMGL and MGL

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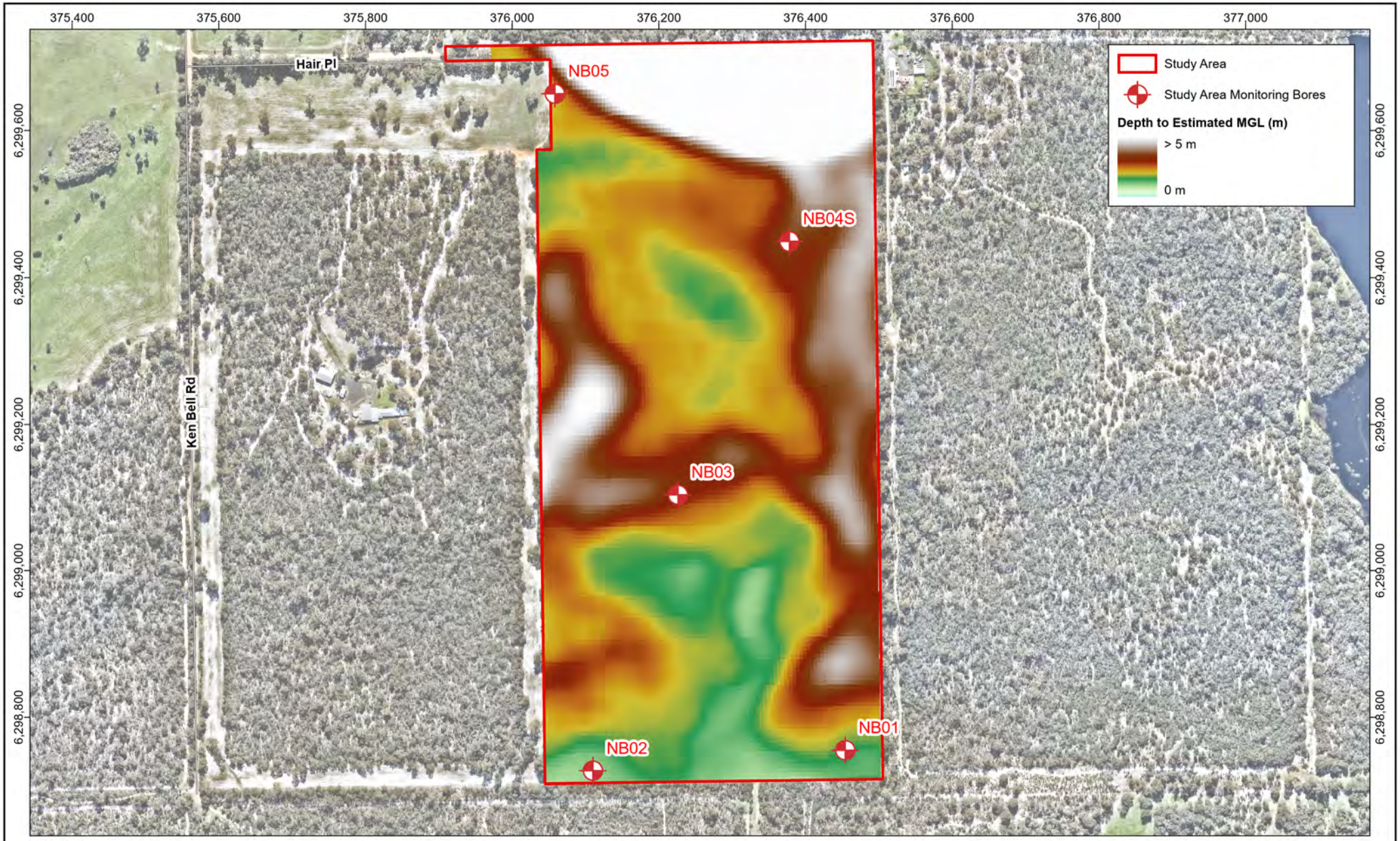
Figure 8: Estimated Maximum Groundwater Level (MGL) Contours



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Lot 1 Hair Place, North Boyanup: Groundwater Level Monitoring
Figure 9: Depth to Estimated MGL

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Our Ref: 12713-G-L-001-A

24 October 2025

Attention: Daniel Lewis

Element
Level 1, 500 Hay Street,
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LOT 1 (34) HAIR PLACE, NORTH BOYANUP, WA – GROUNDWATER MONITORING

1 INTRODUCTION

Element engaged WML Consultants (WML) to undertake a groundwater monitoring programme for the proposed sand extraction works at Lot 1 (34) Hair Place, North Boyanup, WA. This report summarises the groundwater level readings that WML undertook between August and October as part of the 2025 groundwater monitoring program.

WML did not completed the installation of the monitoring wells; thus, the sub-surface soil profile has not been provided in this report.

This report and the information presented herein must be read in conjunction with the attached "Report Limitations".

1.1 Site description

The site is located in North Boyanup and is bounded by rural properties for the majority of its boundaries, except the northwest corner, where the site is connected to Hair Place. The site is approximately 46 ha in size and is currently undeveloped. The existing ground surface is relatively undulated and covered with grass, with trees spaced intermittently across most of the site.

Site survey drawings show that the site elevation varies from RL 24 m AHD to 28 m AHD, with a sand dune rising up to RL 40 m AHD to the northeast of the site.

The 1:50,000 scale Geological Map 'Bunbury - Burekup' indicates that the shallow subsurface profile is expected to comprise Bassendean Sand (Qpb) represented by low rounded dunes.

1.2 Client supplied information

The following information was made available by Element Pty Ltd for the purpose of this report.

- Lot 1 Hair Place, North Boyanup, Groundwater Level Monitoring – July to October 2022, report No. J7247a, prepared by JDA Consultant Hydroloist.
- Work and Excavation Plan – Lot 1 (34) Hair Place, North Boyanup, prepared by Element.

1.3 Objectives

The objective of the groundwater monitoring programme was to assess the peak groundwater levels within the site over the winter season in 2025. Figures 1 and 2 below include the existing monitoring well locations within the site and nearby, respectively.

Figure 1. Existing groundwater monitoring wells within the site.

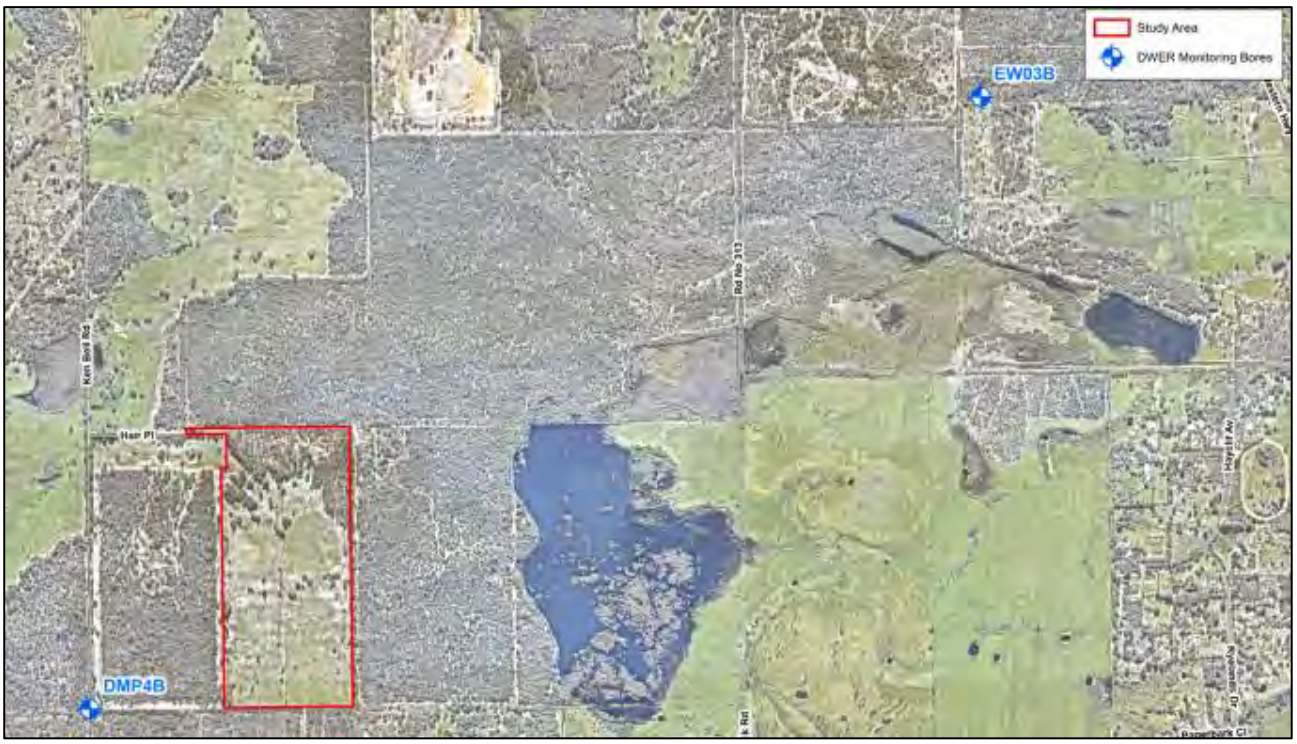

Figure 2. Existing DWER groundwater monitoring wells within the proximity of the site.

2 GROUNDWATER MONITORING

2.1 Groundwater monitoring events

Groundwater monitoring events were conducted on the 25th of August, 30th of September, and 14th of October 2025, and are summarised in the tables below. The DWER monitoring bores DMP4B was locked, and EW03B was fenced in the private property, thus groundwater levels at those locations could not be recorded.

Table 1: Depth to groundwater (m below ground level)

Location ID	Depth of groundwater (m BGL)		
	25/08/2025	30/09/2025	14/10/2025
NB01	1.76	1.69	1.78
NB02	1.33	1.25	1.33
NB03	3.46	3.27	3.37
NB04s	4.05	3.81	3.89
NB04d	4.08	3.85	3.92
NB05	2.96	2.60	2.60

Table 2: Groundwater elevations (m AHD)

Location ID	Groundwater elevations (m BGL)		
	25/08/2025	30/09/2025	14/10/2025
NB01	23.81	23.88	23.79
NB02	23.09	23.17	23.09
NB03	22.97	23.16	23.06
NB04s	22.27	22.51	22.43
NB04d	22.26	22.49	22.42
NB05	20.48	20.84	20.84

3 CLOSURE

We trust that the information provided within this report satisfies your present requirements and meets with your approval. Should you have any queries, please do not hesitate to contact the author of this report.

We draw your attention to the attached "*Report Limitations*" included with this report. This information sheet is intended to provide additional information about this report and the information included within it. This information is provided not to reduce the level of responsibility accepted by WML but to ensure that all parties that rely on this report and the information contained herein are aware of the responsibilities that each assumes in so doing.

Yours faithfully,

Xin Wang
Geotechnical Engineer

Author

Aleksandra Gorczynska
Senior Geotechnical Engineer

Reviewer

For and on behalf of WML Consultants Pty Ltd

REPORT LIMITATIONS

This geotechnical report is provided for the sole use by the Client. This report must not be applied for any other purpose or project except the one originally contemplated without written authorisation from WML. WML accepts no responsibility for the use of this report / document, in whole or in part, in other contexts or for any other purpose.

WML have undertaken investigations, performed consulting services, and prepared this report based on the Client's specific requirements, documents and information supplied, and previous experience. If changes occur in the nature or design of the project, however minor, it is recommended WML review this report to assess their impacts and provide additional recommendations, if any. WML does not assume any responsibility or liability for problems that arise due to developments on site of which we were not informed.

This report utilises data and information provided by third parties, including, but not limited to sub-consultants, published data, and the Client. This information has been assumed to be correct unless otherwise stated. WML assumes no responsibility for assessments made partly or entirely based on information provided by third parties or for the adequacy, incompleteness, inaccuracies, or reliability of any data provided by third parties.

It is the responsibility of the Client to transmit the information, recommendations, and limitations of this report to the appropriate organisations or people involved in design of the project, including, but not limited to developers, builders, owners, buyers, architects, engineers, and designers.

WML's opinions are based on upon information that existed at the time of the production of this report and ground conditions encountered at the time the site study was performed. This geotechnical report should not be relied upon if its adequacy has been affected by: the passage of time, by man-made events, such as construction on or adjacent to the site, or by natural events, such as floods, earthquakes, or groundwater fluctuations. In the event of the above changes, WML should be contacted to determine if this report is still reliable or whether additional testing is required.

The subsurface conditions identified within this report are based only upon investigation locations where subsurface tests have been conducted and / or samples obtained, which are explicitly representative of the specific sample or test location. Interpretation of conditions between such points cannot be assumed to represent actual subsurface information and unknowns or variations in ground conditions between test locations that cannot be inferred or predicted. Actual subsurface conditions may differ significantly from those indicated in this report. Specific warning is also given that many factors, either natural or artificial, may render ground conditions different from those which pertained at the time of the investigation. WML does not accept any responsibility for any variance in the ground conditions that may exist across the site. If unexpected subsurface conditions are encountered, WML shall be notified immediately to review those conditions and provide additional and/or modified recommendations, as necessary.

This geotechnical assessment is based upon judgment of the investigation data, visual observations of the site and materials encountered, along with the proposed land use and project specifications. The findings and recommendations presented within this report represent professional opinions and estimates and should not be taken as fact unless explicitally stated. In general, statements of fact are are limited to what was done and / or what was observed on site.

The recommendations provided in this report are preliminary only; final recommendations can only be given after observing the actual subsurface conditions revealed during construction. WML does not assume responsibility or liability for the recommendations in this report if construction observation has not been performed by a WML geotechnical engineer.

Our services did not include any contamination or environmental assessment of the site or adjacent sites. The equipment and techniques used to perform a geoenvironmental study differ from those used to perform a geotechnical investigation. If you require any geoenvironmental information for your project, WML can advise on further steps to be undertaken.

WML have performed our professional services in accordance with generally accepted geotechnical engineering principles and practices currently employed in the area; no warranty, expressed or implied, is made as to the professional advice included in this report.

Lot 1 (34) Hair Place, North Boyanup
Extractive Industry Development Application & Licence
October 2025 – 22-368

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