

WESTERN AREAS LTD



**CLEARING PERMIT APPLICATION – SUPPORTING
INFORMATION
WESTERN AREAS LIMITED – JILBADJI
EXPLORATION PROJECT**

Version: [Version]

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1. INTRODUCTION

1.1 Purpose

The purpose of this document is to address the Department of Mines, Industry Regulation and Safety’s (DMIRS) information requirements for assessment of an amendment application for a clearing permit (purpose permit) made by Western Areas Ltd (WSA).

The application relates to the proposed clearing of native vegetation for the purposes of mineral exploration located within the Jilbadji Nature (Class C) Reserve (R 24049), which has an area of approximately 210,000 ha (Botanica 2021). This proposed disturbance occurs within tenements E77/1734, E77/1581, E77/2235, E77/2261 and E77/2440 which cover an area of 25, 800 ha. The total proposed native vegetation clearing is 6.98 ha, or 0.027 % of the total aforementioned tenements (Table 1).

Table 1: Tenement size and disturbance totals.

Tenement	Tenement size (ha)	Proposed Disturbance (ha)	Percentage of tenement
E77/1581	2333	0.16	0.007 %
E77/1734	4769	0.16	0.003 %
E77/2235	1752	0.13	0.007 %
E77/2228	1750	4.62	0.264 %
E77/2261	13,738	0.75	0.005 %
E77/2440	1458	1.16	0.080 %
Totals	25, 800	6.98	0.027 %

The Jilbadji Exploration Project is within an Environmentally Sensitive Area (ESA) as defined by Part V of the *Environmental Protection Act 1986*. A Conservation Management Plan (CMP) is being prepared to support the tenement conditions and will outline proposed activities, environmental management and departmental communications regarding the disturbance on E77/2228 and E77/2261 (also P77/4478 and P77/4479 which are not associated with clearing permit 8833). The CMP will guide WSA on how to avoid and manage environmental impacts in order to protect conservation values to the greatest extent practicable and ensure relevant laws and authorisations are complied with.

As per DMIRS requirements for clearing permit applications, this document provides relevant information relating to:

- Location and history of the site;
- Site overview;
- Environmental management; and
- Considerations of the 10 ‘Clearing Principles’ as defined by Schedule 5 of the *Environmental Protection Act 1986*.

Fauna and flora reports together with any other relevant information are included as appendices to this document.

1.2 Location

WSA holds a number of exploration licences associated with the Jilbadji Exploration Project. The licences include E77/1734, E77/1581, E77/2235, E77/2228, E77/2261 and E77/2440. Figure 1 shows the location of the project within Western Australia and Figure 2 shows the location of the tenements in relation to Jilbadji Nature Reserve. Figure 3 to 8 show the planned disturbance on each of the tenements.



Figure 1: Location of the Parker Dome Exploration Project with Western Australia.

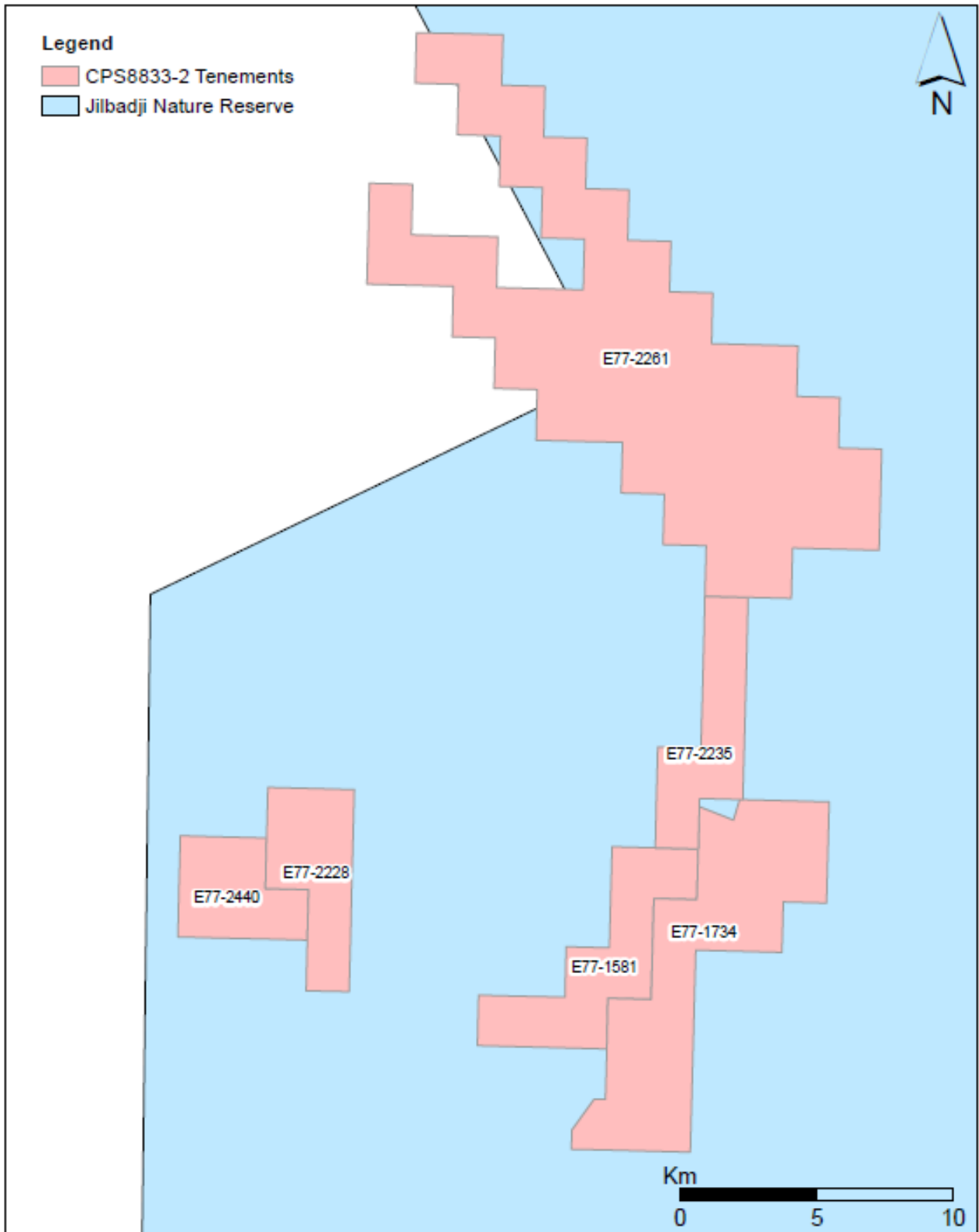


Figure 2: Location of CPS8833-2 tenements in relation to Jilbadji Nature Reserve.

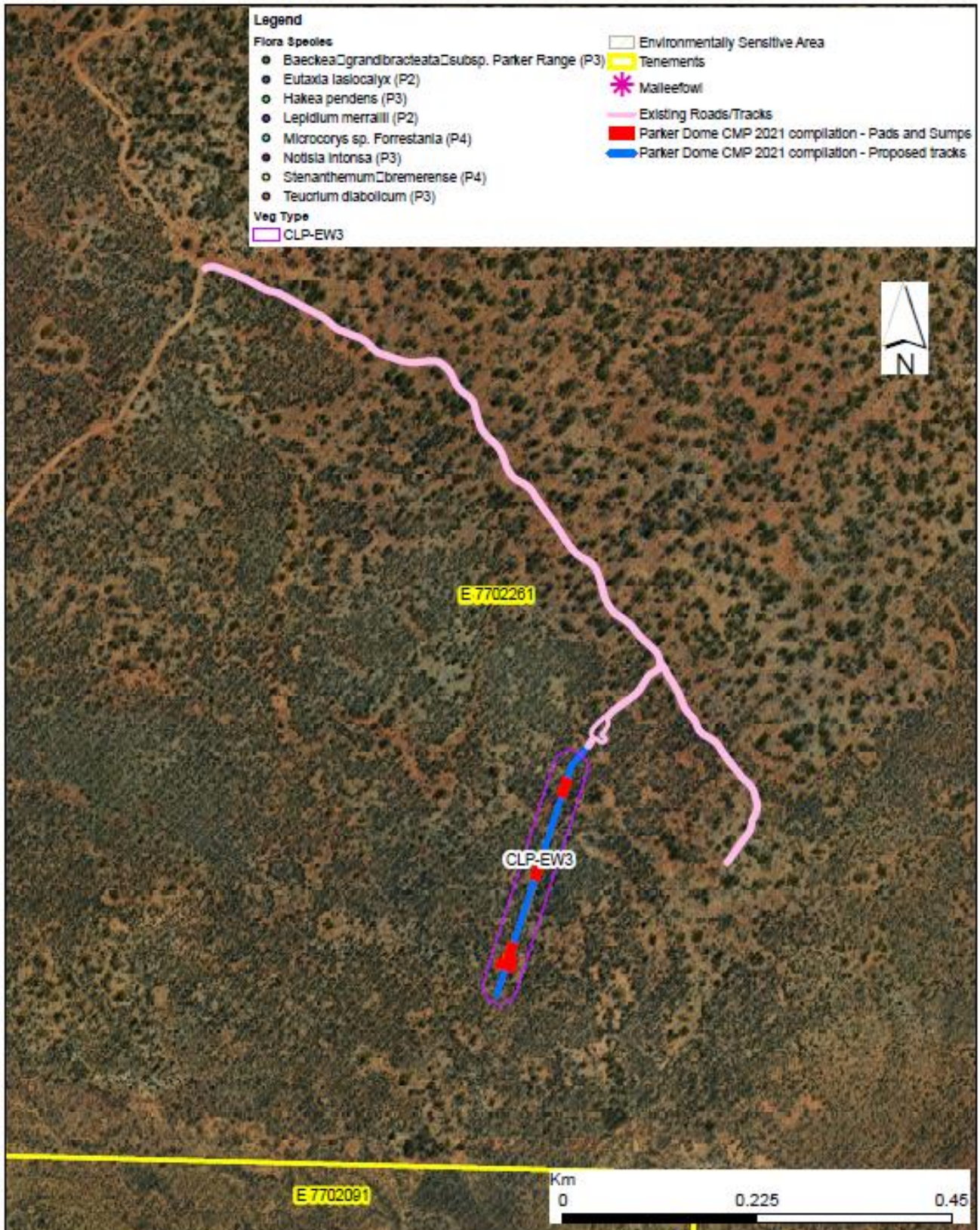


Figure 3: E77/2261 proposed exploration drill pads and access locations.

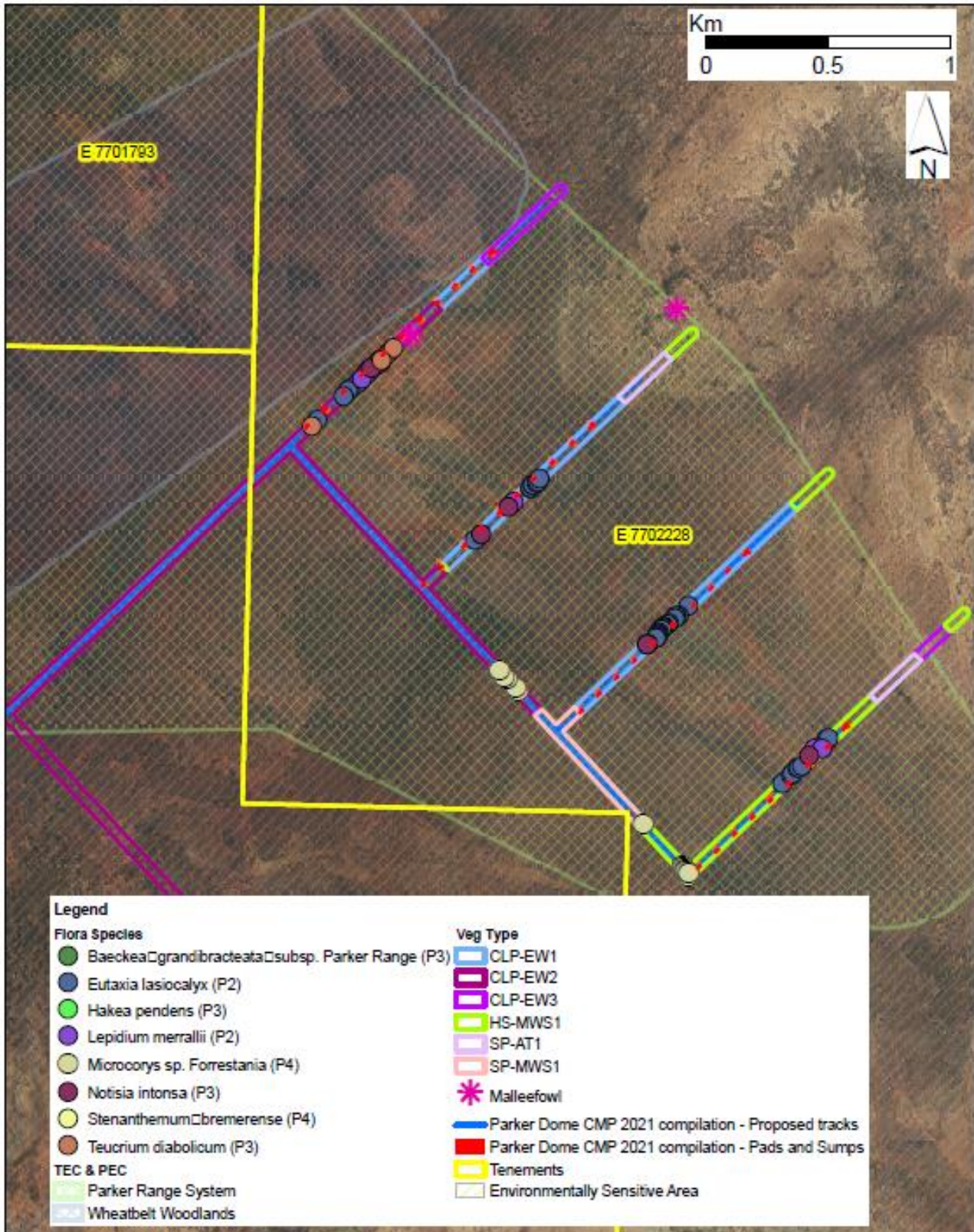


Figure 4: E77/2228 proposed exploration drill pads and access locations.

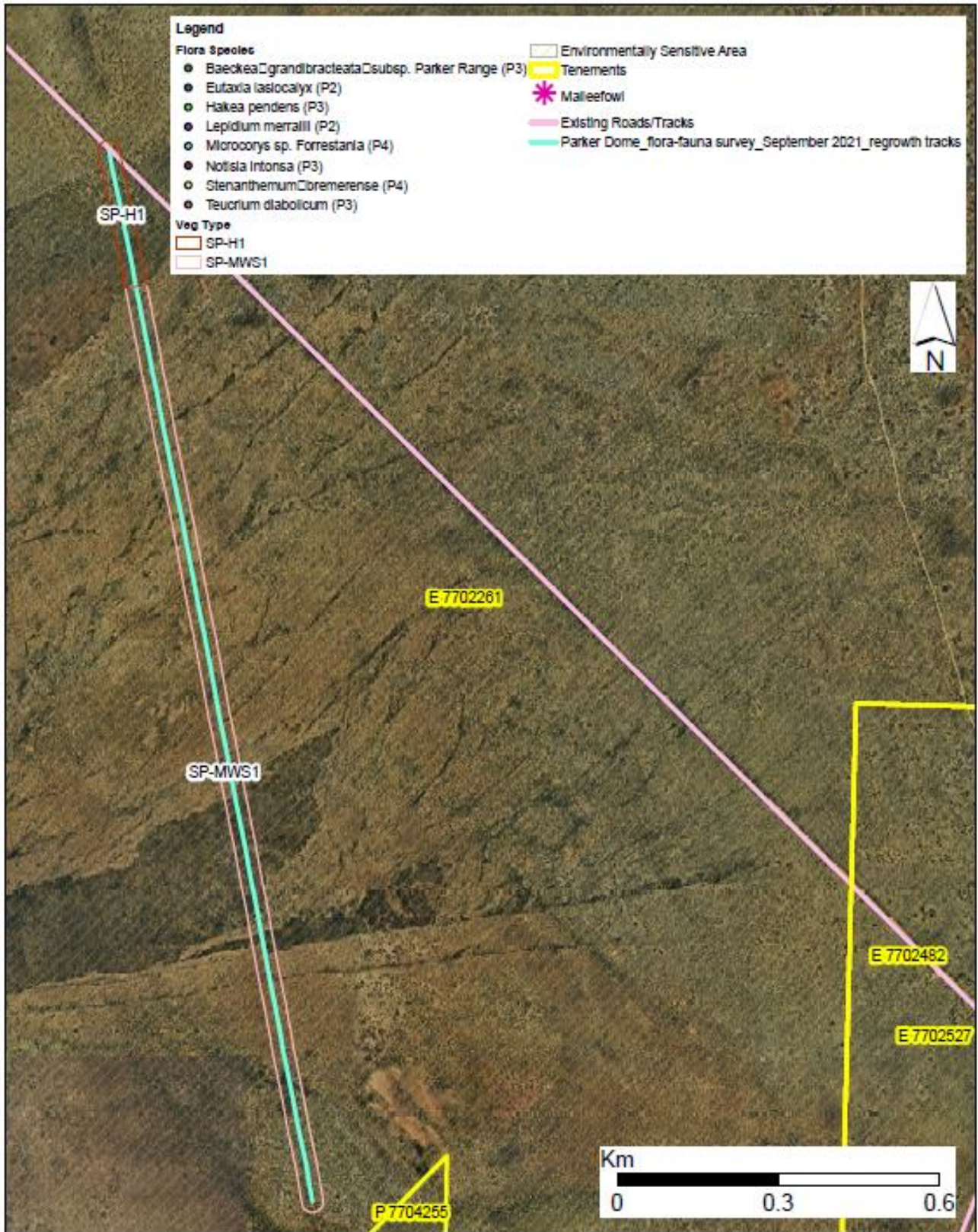


Figure 5: E77/2261 Proposed disturbance of regrowth on previously cleared tracks.



Figure 6: E77/2235 Proposed disturbance of regrowth on previously cleared tracks.

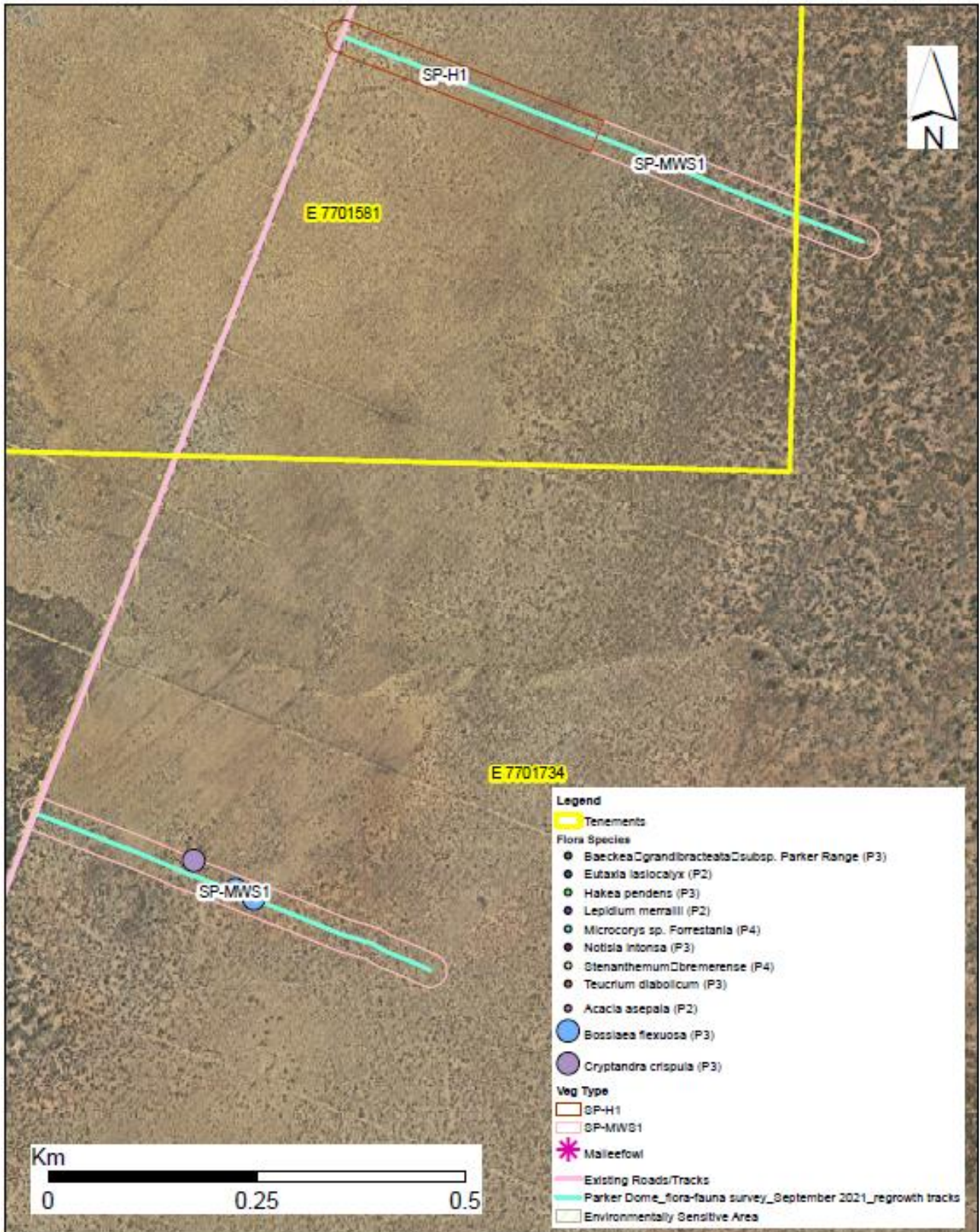


Figure 7: E77/1581 and E77/1734 Proposed disturbance of regrowth on previously cleared tracks.

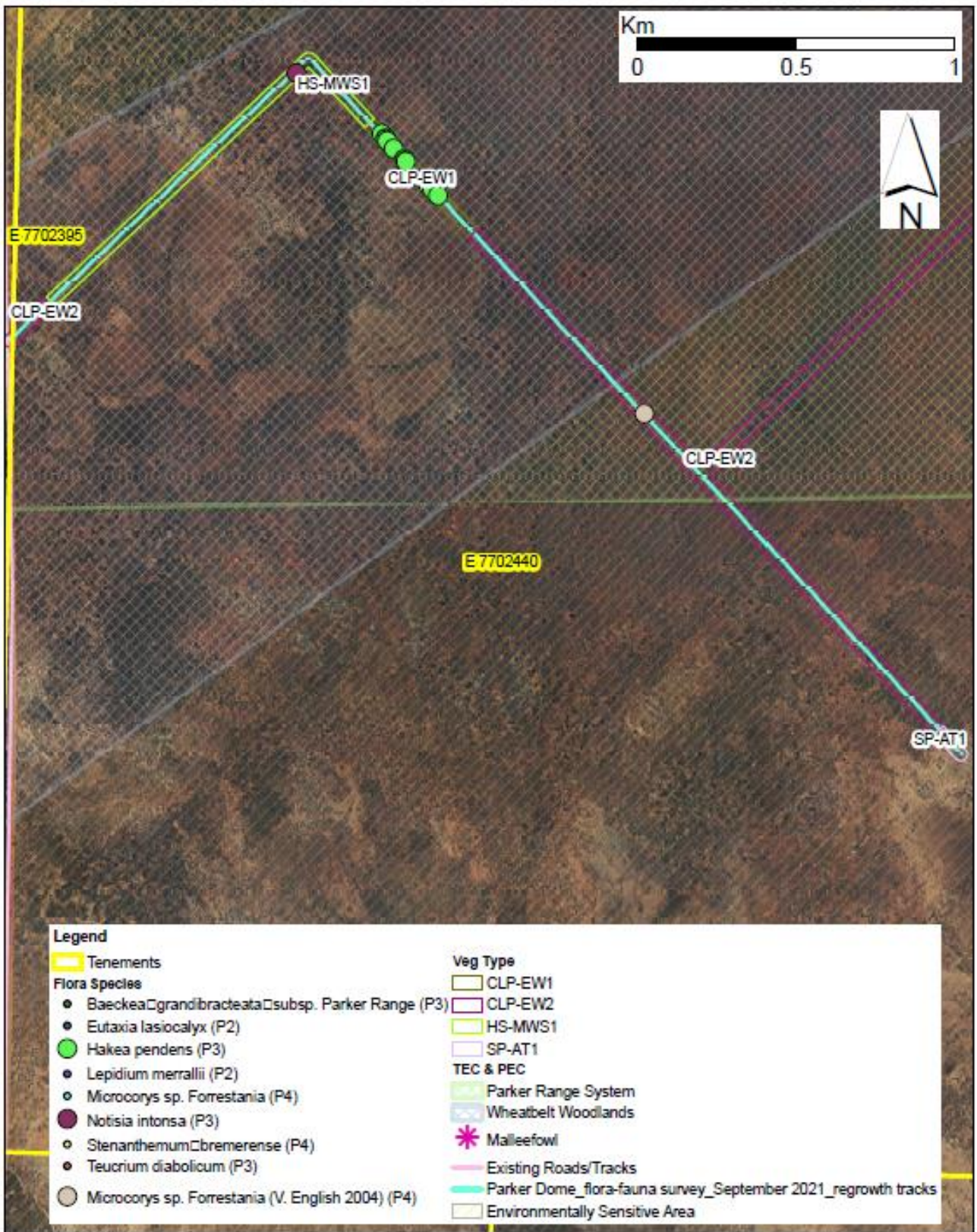


Figure 8: E77/2440 Proposed disturbance of regrowth on previously cleared tracks.



1.3 History

Since the 1960's, the Forrestania Nickel Operation (FNO) project area has been targeted by exploration companies. From 1992 to 1999, Outokumpu Mining Australia Pty Ltd operated the FNO which included mining and mineral processing operations. In 2000, WSA took over tenure of the project area and commenced exploration (focusing on the previously mined sites at Flying Fox and Digger Rocks). The exploration resulted in relatively immediate success with redevelopment and mining commencing on the Flying Fox nickel mine in late 2004.

In March 2012, WSA purchased the Lounge Lizard mine and acquired 100 per cent of Kagara's nickel subsidiary (Kagara Nickel Pty Ltd) which consisted of a surrounding package of 300 km² exploration tenements and now operates as Western Areas Nickel Pty Ltd. Most historical operations in the area have been nickel and gold exploration.

2. SITE OVERVIEW

2.1 Biogeographic Region

The areas of proposed clearing lie within the Southern Cross subregion of the Coolgardie Region, as classified by Interim Biogeographic Regionalisation for Australia (IBRA). This subregion encompasses an area of 7 041 232 ha (DEWHA, 2009). The area consists of a mosaic of previously disturbed and undisturbed vegetation.

2.2 Regional Topography and Surface Water

Based on a geo-referenced assessment of Newbey's work, The Jilbadji Exploration Project (for the purposes of this application) falls within the Sandplain, and Broad Valley landform units with some minor areas of the Granite Exposure unit (Newbey 1995).

Sandplain is the dominant landform unit and comprises undulating uplands including upper and middle valley slopes. The dividing line between Sandplain and Broad Valley is the change of slope from erosional to colluvial. Sandplain slopes rarely exceed 2° and the soil profiles are thick and laterized. Areas of Sandplain high in the landscape are the result of in situ weathering and consist of Gravelly Sands or Shallow Sands. Sandplains low in the landscape (Deep Sands) have a thicker A-horizon with a colluvial component derived from areas up-slope. Run-off only occurs over short distances following heavy and intense rain.

Broad Valleys are widespread within the survey area and are valleys of a previous landscape that have filled with colluvium and alluvium which has been frequently reworked - including by aeolian action. Valley floors are now almost flat and the same soils extend up the valley slopes from 5 m to 20 m above floor level. Internal slopes rarely exceed 2 degrees. A range of soil types form a mosaic in most places but the B horizon is always calcareous. Deep Calcareous Earths are the major soil group on the Broad Valley unit. Aeolian sands form extensive sheet deposits that sometimes contain subdued sand dunes which have been stabilised by vegetation.

Granite exposures are scattered throughout the area with the highest concentration in the south-eastern section. Exposures of granite range in topography and size from flat and a few metres across, to the dome of Cave Hill which rises about 90 m above the surrounding plain. The surfaces of exposures are mainly bare, with scattered small pieces of exfoliated flat stone. Sheet deposits of skeletal soil have developed in the low-lying areas of the exposure. Due to the thinness of deposits (up to 30 cm) the soil can become waterlogged and dry out more rapidly than the thicker soil profiles of surrounding plains. Run-off also increases the rate of waterlogging. Peripheral to the bedrock exposures are aprons of soils to 1.5 m thick, that have primarily weathered in situ from the underlying granite. Large exposures usually have 1-3 faint drainage lines where the soil is damp to waterlogged during winter. Others lack drainage lines and the run-off sheds evenly around the perimeter resulting in a narrow zone of soil (up to 36 m) that may be damp or waterlogged for long periods during winter. Ephemeral pools, up to a few metres across and rarely more than 30 cm deep, occur on the exposures.

The target location is situated within the Salt Lake (Salinaland) physiographic division which includes most of the Wheatbelt region of Western Australia. This division is characterised by chains of salt



lakes which are relic river systems. Normally the salt lakes act as surface water sinks but in exceptionally wet years, floodwaters move along the paleodrainages. A major topographic divide passes through Forrestania that separates paleodrainages that lead westwards towards the Avon drainage system and those that lead eastwards to the Eucla Basin. The area straddles the divide and is at the extreme upper catchment of the Avon drainage system.

The local area does not feature any significant topographical features and for the most part is of low relief approximately 400m AHD. There are no natural defined/incised drainage channels ephemeral or otherwise within the proposed drill target locations, however broad scale regional drainage lines are present. Surface water would only flow through this area during extreme rainfall events.

2.3 Regional Geology

The survey area is located on the Cheritons Find 1:100,000 geological series map sheet published by the Western Australia Geological Survey (Bagas 1994). In geological terms, according to Bagas (1994), the area near the survey area and surrounds is located within the Southern Cross Province of the Yilgarn Craton.

2.4 Soils

Tille (2006) describes the main soil mapping zone of the survey area and surrounding areas as being within the Southern Cross Zone (SCZ) which comprises undulating plains and uplands (with some Salt Lake and low hills) on deeply weathered mantle, colluvium and alluvium over greenstone and granitic rocks of the Yilgarn Craton. The main soil characteristics of the SCZ are calcareous loamy earths, red and yellow loamy earths and alkaline deep and shallow sandy duplexes with some yellow sandy earths, Salt Lake soils, yellow deep sands and red shallow loamy duplexes.

2.5 Regional Hydrology

Groundwater in the regional area occurs in weathered and fractured bedrock aquifers. Groundwater salinity ranges from generally saline to hypersaline and is on average around 40 000 mg/L TDS.

Groundwater movement is generally from higher parts of the landscape, often where greenstone belts occur, to salt lakes which may indicate the presence of paleochannel systems. Recharge is mostly by widespread infiltration of rainfall, probably at low rates as indicated by the high prevailing groundwater salinities.

2.6 Climate

Beard (1990) describes the climate of the South Western Interzone in general terms as being “Arid non-seasonal to semi-arid Mediterranean; annual precipitation 200-300mm.” According to the Bureau of Meteorology website BOM (2019), one of the nearest weather stations to the survey area showing mean annual rainfall statistics is Mulgara (BOM station 12298). Climate data recorded for 12298 show that the annual mean rainfall is 330.2 mm per annum with most (~60%) recorded in the period between April and August. July is on average the wettest month. The nearest weather station to the survey area showing mean annual temperature statistics is Southern Cross airfield (BOM station 12320). Data recorded for 12320 shows that mean maximum temperatures range from 16.6°C in July to 34.7°C in January with mean minimum temperatures ranging from 3.6°C in July and August to 17.8°C in January.

2.7 Flora and Fauna

The areas of proposed clearing lie within the Southern Cross subregion of the Coolgardie Region, this subregion encompasses an area of 7 041 232 ha (DEWHA, 2009). The area consists of a mosaic of previously disturbed and undisturbed vegetation. Australasian Ecological Services (2015) have reported that in some areas of the Jilbadji Nature Reserve historic drill lines dissected survey areas at generally 200 m intervals but were up to 100 m intervals in some areas.

There have been no publicly available vegetation and flora surveys undertaken within the immediate vicinity of survey area in the relatively recent past (since 2000). Surveys covering the proposal area prior to 2000 include the general Vegetation Survey of Western Australia (1:250,000 series) by J.S. Beard in the 1970s; and the general Biological Survey of the Eastern Goldfields of Western Australia

Part 4 Hyden-Lake Johnston study area; and Part 11 Boorabbin-Southern Cross study area undertaken by the Biological Surveys Committee between 1977 and 1983. Neil Gibson and Mike Lyons of the then Department of Conservation and Land Management (CALM) completed a further detailed study of the Parker Range, which starts approximately 10 kms to the west of the proposal area, in 1994 (published 1998). Neil Gibson completed a survey of the Ironcap ranges area between Middle Ironcap and Hatter Hill in 1996 (published 2004), however, this area is located approximately 60 kms to the south of the survey area.

2.7.1 Flora Surveys

WSA engaged Botanica Consulting during September 2018 to undertake a detailed (Level 1), vegetation and flora survey (Appendix 1) of the exploration tenements within the Jilbadji Nature Reserve. The field survey covered an area of approximately 7,082 ha and included 104 ha of targeted survey area. Botanica were recommissioned in Spring 2021 to conduct reconnaissance and targeted surveys of regrowth tracks and areas proposed for a new exploration program (Appendix 2).

Results from a DAWE Protected Matters Search Tool search showed that a Threatened Ecological Community (TEC), Eucalypt Woodlands of the Western Australian Wheatbelt, was mapped in the vicinity of proposed exploration. Field surveys provided evidence that vegetation on the ground was inconsistent with that specific TEC. Vegetation in the mapped TEC area consisted of open low woodland or regrowth woodland of *Eucalyptus flocktoniae*/*E. salmonophloia*/*E. urna* (Botanica 2021) (Plate 1).



Plate 1: Open low woodland (left) and regrowth woodland of *Eucalyptus flocktoniae*/*E. salmonophloia*/*E. urna* (right) (Botanica 2021).

The Botanica surveys also highlighted that the northern and western portion of the survey area is located within the Department of Biodiversity, Conservation and Attractions (DBCA) listed Priority 3 Ecological Community, Parker Range Vegetation Complex.

No Threatened Flora species, pursuant to Part 2 of the *Biodiversity Conservation Act 2016* (BC Act) or the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were identified in the survey area. From the 2018 and 2021 surveys, Botanica recorded eighteen DBCA listed Priority Flora species (Table 2) (Botanica 2019 and Botanica 2021).

Table 2: Priority Flora species identified by Botanica during 2018 and 2021 surveys.

Taxon	Priority Listing	Taxon	Priority Listing
<i>Acacia asepala</i>	P2	<i>Hakea pendens</i>	P3
<i>Baeckea grandibracteata</i> subsp. Parker Range	P3	<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4
<i>Bossiaea celata</i>	P3	<i>Microcorys</i> sp. Mt Holland (D. Angus DA 2397)	P1



<i>Bossiaea flexuosa</i>	P3	<i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583)	P3
<i>Caesia viscida</i>	P2	<i>Notisia intonsa</i>	P3
<i>Chorizema circinale</i>	P3	<i>Stenanthemum bremerense</i>	P4
<i>Cryptandra crispula</i>	P3	<i>Stylidium sejunctum</i>	P3
<i>Eutaxia lasocalyx</i>	P2	<i>Teucrium</i> sp. dwarf (R. Davis 8813)	P3
<i>Grevillea prostrata</i>	P4	<i>Verticordia multiflora</i> subsp. solox	P2

2.7.2 Fauna Surveys

Australasian Ecological Services (AES) carried out Level 1 and Level 2 targeted and field fauna surveys for WSA in September 2018. Three fauna species were recorded during the field survey (AES 2018) *Leipoa ocellata* (mallee fowl), *Notamacropus irma* (western brush wallaby) and *Platycercus icterotis xanthogenys* (western rosella). *N. irma* and *P. icterotis* are classed Priority Fauna 4 while *L. ocellata* is classed vulnerable under the EPBC Act and the BC Act.

One of the key findings of the survey was that none of the habitat types present were assessed as being critical to any of these species. Furthermore, the area in question is considered to be only a small part of a large and similar landscape containing a similar range of vegetation as described for the study area in vegetation surveys.

2.8 Vegetation and Land Degradation Issues

The area within the Jilbadji Nature Reserve has been disturbed through historical exploration activities and repeated bushfires. Many of the historic exploration grid lines and access tracks are now largely overgrown and on the ground are often barely discernible from the surrounding vegetation. Vegetation affected by fire was considered to be in Very Good condition and not recently burnt areas of vegetation are considered to be in Excellent to Pristine condition on the scale of Keighery (1994).



3. CONSIDERATIONS OF THE TEN CLEARING PRINCIPLES

Under Schedule 5 of the *Environmental Protection Act 1986*, ten clearing principles must be addressed before a clearing permit can be issued. Responses to the ten clearing principles are outlined below.

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

The 2018 Botanica flora survey revealed that 178 taxa were present in the survey area. The species abundance and diversity overlap the vegetation adjacent to the proposed clearing envelope.

Jilbadji Nature Reserve is a significant area in maintaining existing ecological processes at a regional scale. It is substantially larger than the average reserve area in the wheatbelt and furthermore transitions unbroken into the surrounding ecology of the Greater Western Woodlands.

During the planning stage, exploration areas are walked and surveyed by independent authoritative consultants. Data from the surveys is used by WSA representatives to flag areas where disturbance must be kept to a minimum or avoided. For the most part, WSA proposes to use previously disturbed tracks/gridlines for access to drill sites.

Following these strategies, WSA will not be affecting the biological diversity of the surrounding native vegetation.

3.2 Principle (b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

Fauna indigenous to Western Australia have been recorded adjacent to proposed clearing areas. The 2018 AES survey surmised that none of the fauna habitat types surrounding the proposed clearing areas are critical to any of the recorded fauna. In addition, the area is considered to be a small part of a large and similar landscape.

Data from the fauna surveys will be used by WSA representatives to flag areas where disturbance must be kept to a minimum or avoided. For the most part, WSA proposes to use previously disturbed tracks/gridlines for access to drill sites. Therefore, any vegetation that is to be cleared will not be affecting the habit of fauna indigenous to Western Australia.

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

Neither Botanica survey (2018 nor 2021) identified rare flora pursuant to relevant legislation within the proposed clearing area. For the most part, WSA proposes to use previously disturbed tracks/gridlines for access to drill sites.

Based on these statements, WSA will not be clearing native vegetation that includes rare flora.

3.4 Principle (d) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a threatened ecological community.

No Threatened Ecological Communities as per the *Environment Protection and Biodiversity Conservation Act 1999* or the *Biodiversity and Conservation Act 2016* were identified in the project area. The area is located within the boundary of two Priority 3 Ecological Communities, those being Ironcap Hills and Parker Range. Priority Ecological Communities are not formally protected but are areas of conservation significance which are being considered for listing and formal protection.



None of the proposed clearing will impact on vegetation that comprises or is necessary for the maintenance of a threatened ecological community.

3.5 Principle (e) – Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

According to DAFWA (2007), the Southern Cross subregion of the Coolgardie Region occurs in the pre-European Beard vegetation association Forrestania 511 of which 100% of the original vegetation extent remains. The proposed clearing by WSA will not reduce the Southern Cross subregion of the Coolgardie Region vegetation to less than the threshold value. The vegetation surrounding the proposed clearing area is continuous with the vegetation of the Jilbadji Nature Reserve and further afield into the Greater Western Woodlands.

No vegetation considered as a significant remnant of extensively cleared vegetation will be impacted by this proposal.

3.6 Principle (f) – Native vegetation should not be cleared if is growing in, or in association with, an environment associated with a watercourse or wetland.

No riparian vegetation has been identified within the project area or within the broader vegetation survey area.

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

All disturbance in relation to this clearing permit will be designed to minimise the potential impacts of erosion. Clearing for exploration will employ the raised blade and mulching clearing methods to allow for rapid regrowth following the temporary use of access tracks for exploration. WSA is committed to adhering to environmental best practice which includes the principle of minimal disturbance and/or avoidance and aims to minimise land degradation.

Given the relatively small amount of clearing involved and the mitigation methods being employed during the initial disturbance, it is unlikely that the proposed clearing will lead to land degradation. Furthermore, WSA have adhered to an existing Conservation Management Plan and withdrawn exploration activities during rainfall events. This has prevented land degradation (such as compaction and wheel rutting) which can occur on wet soils. WSA will continue this practice under the proposed Conservation Management Plan.

3.8 Principle (h) – Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

The clearing permit application area lies within the Jilbadji Nature Reserve which is considered one of a number of areas in the Wheatbelt region that is a significant area for flora and fauna due to widespread clearing in the surrounding landscape.

Given the minimal amount of clearing involved, WSA believes the proposed clearing will not affect the environmental values of the adjacent and nearby conservation areas. Furthermore, WSA is developing a Conservation Management Plan for the project area in consultation with the DBCA.

3.9 Principle (i) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

There is little overland surface water flow during normal seasonal rains and the low annual rainfall and high evaporation rate means that there is little recharge to the underground water. Monitoring of water levels in the Forrestania operational area, indicates that ground water levels are at least 40 m below ground level.



As the individual areas to be cleared are relatively minor, it is unlikely that the proposed clearing will impact surface or underground water quality.

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

The vegetation in the proposed clearing area is not associated with any watercourses or drainage lines and the area has low annual rainfall which makes flooding unlikely.

Regardless, the area to be cleared is relatively minor and therefore it is unlikely that clearing of this vegetation will cause, or exacerbate, the incidence of flooding.

4. ENVIRONMENTAL MANAGEMENT ISSUES

Exploration operations within the project area will be undertaken in line with relevant state and federal legislation and a number of additional environmental management policies and procedures. These include:

1. The DMP publication: *Guidelines for Mineral Exploration and Mining within Conservation Reserves and Other Environmentally Sensitive Lands in Western Australia* published in 1998;
2. DMP publication *Conditions and Rehabilitation Guidelines for Mineral and Exploration Activities* published in 2003;
3. Tenement Conditions as per latest conditions outlined in the tenement register on the Minerals Titles Online website;
4. The WSA CMP; and
5. WSA’s Environmental Policy “COR-ENV-POL_2135_Environmental Policy”.

Furthermore, the following environmental management measures will be undertaken where appropriate during any ground disturbance works and operation of infrastructure related to this proposed clearing permit:

- Ground disturbance will be undertaken in accordance with relevant mining act approvals (eg PoWs).
- Clearing will be kept to the minimum amount required for safe access to exploration sites.
- Locations of any priority flora will be clearly marked in the field and in the GIS database.
- Employees and contractors will be educated to reduce the risks to priority flora.
- The layout of exploration activities will be planned to avoid disturbance of priority species where possible, if unavoidable WSA will liaise with DBCA regarding the removal of these species.
- Where possible low impact clearing methods such as raised blade clearing will be used (eg for access tracks and drill sites).
- Where vegetation is cleared, it will be appropriately stockpiled and returned directly to the disturbed areas during rehabilitation operations.
- All topsoil removed will be appropriately stockpiled and returned directly to the disturbed areas during rehabilitation operations.
- Areas no longer being used will be progressively rehabilitated during the life of the operation.
- All disturbed areas will be rehabilitated within 6 months of completion of the exploration activities.
- If required, direct seeding using a suitable provenance native seed mix will be carried out.
- Appropriate surface water management earthworks will be implemented to reduce the risk of erosion or sedimentation.
- WSA will ensure that all vehicles, tools and machinery are cleaned prior to entry and movement to new areas to prevent spread of foreign soil and plant material.
- Clearing will be restricted to dry periods.



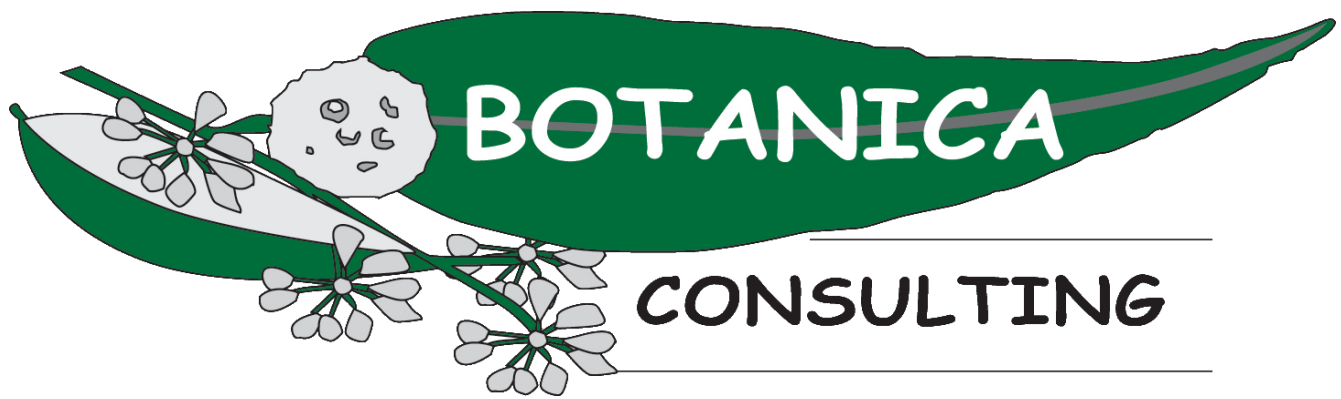
- Vehicle access to, from and within the exploration areas will be restricted to designated areas (eg existing access tracks).

5. REFERENCE DOCUMENTS

- Australian Government Bureau of Meteorology. (2019, April 2). Climate Statistics for Australian Locations. Retrieved April 2, 2019, from <http://www.bom.gov.au>.
- Australasian Ecological Services Pty Ltd. (2015). Level 1 Fauna Survey, Southern Tenements, Jilbadji Nature Reserve for proposed mineral exploration program. Unpublished report prepared for Western Areas Ltd.
- Australasian Ecological Services Pty Ltd. (2018). Level 1 Fauna Assessment and Level 2 Targeted Fauna Survey of Proposed Parker Dome and Northern Estates Clearing Envelopes, Jilbadji Nature Reserve. Unpublished report prepared for Western Areas Ltd.
- Bagas, L. (1994). Geology of the Cheritons Find 1:100,000 Sheet. Geological Survey of Western Australia, Department of Minerals and Energy, Perth.
- Beard, J.S. (1990). Plant Life of Western Australia. Kangaroo Press, Kenthurst NSW, 1990.
- Beard, J. S. (1979). Vegetation Survey of Western Australia - The Vegetation of the Hyden Area, Western Australia, Map and Explanatory Memoir. Perth: Vegmap Publications.
- Botanica Consulting. (2019). Detailed Flora & Vegetation Survey and Targeted Flora Survey of the Parker Dome Exploration Project. Unpublished report prepared for Western Areas Ltd.
- Botanica Consulting. (2021). Memorandum: Targeted Flora/Vegetation and Fauna survey – Parker Dome Program of Work. Unpublished report prepared for Western Areas Ltd.
- DAWE. (2021a). Protected Matters Search Tool. *Environment Protection and Biodiversity Conservation Act 1999*, Department of Agriculture, Water and Environment. Accessed: 4th November 2021
- DEWHA. (2009). Retrieved February 8, 2009, from <http://www.environment.gov.au> .
- Keighery, B. J., (1994). Bushland Plant Survey: A guide to plant community survey for the community. Wildflower Society of Western Australia (Inc.), Nedlands.
- Newbey, K.R. (1995). Physical Environment [Part 11]. In: Keighery, G., McKenzie, N.L. and Hall, N.J. (1995). The Biological Survey of the Eastern Goldfields of Western Australia. Part 11. Boorabbin-Southern Cross Study Area. Part 12. Barlee-Menzies Study Area. Records of the Western Australian Museum Supplement No. 49. Western Australian Museum.
- Tille, P. (2006). Soil landscapes of Western Australia's Rangelands and Arid Interior. Resource Management Technical Report 313. Department of Agriculture and Food. Government of Western Australia. December 2006.



Appendix 1. Detailed Flora & Vegetation Survey and Targeted Flora Survey of the Parker Dome Exploration Project



**Detailed Flora & Vegetation Survey
and Targeted Flora Survey
of the Parker Dome Exploration Project
Prepared For**



**February 2019
Version 2**

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Glossary

Acronym	Description
ANCA	Australian Nature Conservation Agency.
BAM Act	Biosecurity and Agriculture Management Act 2007, WA Government.
BC Act	Biodiversity Conservation Act 2016, WA Government.
Botanica	Botanica Consulting.
BoM	Bureau of Meteorology.
DAFWA	Department of Agriculture and Food (now DPIRD), WA Government.
DBCA	Department of Biodiversity, Conservation and Attractions (formerly DPaW), WA Government.
DEC	Department of Environment and Conservation (now DBCA), WA Government.
DER	Department of Environment Regulation (now DWER), WA Government.
DMIRS	Department of Mines, Industry Regulation and Safety (formerly DMP), WA Government
DMP	Department of Mines and Petroleum (now DMIRS), WA Government.
DotEE	Department of the Environment and Energy (formerly DSEWPaC), Australian Government.
DoW	Department of Water (now DWER), WA Government.
DPaW	Department of Parks and Wildlife (now DBCA), WA Government.
DPIRD	Department of Primary Industries and Regional Development, WA Government
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DotEE,), Australian Government.
DWER	Department of Water and Environmental Regulation (formerly EPA, DER and DoW), WA Government
EP Act	Environmental Protection Act 1986, WA Government.
EP Regulations	Environmental Protection (Clearing of Native Vegetation) Regulations 2004, WA Government.
EPA	Environmental Protection Authority, WA Government.
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999, Australian Government.
ESA	Environmentally Sensitive Area.
Ha	Hectare (10,000 square metres).
IBRA	Interim Biogeographic Regionalisation for Australia.
IUCN	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union.
Km	Kilometre
MVG	Major Vegetation Groups.
NVIS	National Vegetation Information System.
OEPA	Office of the Environmental Protection Authority (now DWER), WA Government.
PEC	Priority Ecological Community.
SSC	Species Survival Commission, International.
Survey Area	Parker Dome Exploration Project.
TEC	Threatened Ecological Community.
WA	Western Australia.
WAHERB	Western Australian Herbarium.
WAM	Western Australian Museum, WA Government.
WC Act	Wildlife Conservation Act 1950, WA Government.
WSA	Western Areas Limited

Executive Summary

Botanica Consulting (Botanica) was commissioned by Western Areas Limited (WSA) to undertake a detailed flora and vegetation survey and targeted flora survey of the Parker Dome Exploration Project (referred to as the 'survey area'), which is located within the Jilbadji Nature Reserve, approximately 62 km south-east of Southern Cross, Western Australia. The survey was conducted in spring from the 18th to 19th September 2018 and 18th to 19th October 2018 covering an area of approximately 7,082 ha (including 104 ha of targeted survey area). Twenty-four quadrats (20m X 20m) were established during the survey.

Four vegetation associations were identified within the survey area. These vegetation associations were located within three different landform types and comprised of three major vegetation groups, which were represented by a total of 34 Families, 79 Genera and 178 Taxa (including four annual taxa).

Species composition assessments indicate there was minimal heterogeneity in species composition across the survey area, with quadrats from different vegetation associations (excluding SP-H2) intermixed into floristic groups despite differences in dominant stratum taxa. However, two distinct supergroups were identified. The first supergroup comprised mostly of quadrats from the clay-loam plain (Eucalypt Woodlands) vegetation association and one sand-loam plain (Mallee Woodlands and Shrublands) quadrat. The second supergroup comprised a mix of quadrats from the sandplains (Heathlands) and sand-loam plain (Mallee Woodlands and Shrublands) vegetation associations.

No Threatened Flora species, pursuant to the *Biodiversity Conservation Act 2016* (BC Act) and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) were identified within the survey area. Twelve Priority Flora species (as listed by the Department of Biodiversity, Conservation and Attractions (DBCA)) were recorded within the survey area:

1. *Acacia asepala* (P2);
2. *Bossiaea celata* (P3);
3. *Bossiaea flexuosa* (P3);
4. *Caesia viscida* (P2);
5. *Chorizema circinale* (P3);
6. *Cryptandra crispula* (P3);
7. *Grevillea prostrata* (P4);
8. *Microcorys* sp. Forrestania (V. English 2004) (P4);
9. *Microcybe* sp. Windy Hill (G.F. Craig 6583) (P3);
10. *Stylidium sejunctum* (P3);
11. *Teucrium* sp. dwarf (R. Davis 8813) (P3); and
12. *Verticordia multiflora* subsp. *solox* (P2).

No Threatened Ecological Communities (TEC) pursuant to Commonwealth or State legislation were identified within the survey area. The survey area does not contain any world or national heritage places, wetlands of international importance (Ramsar Wetlands) or wetlands of national importance (Australian Nature Conservation Agency (ANCA) wetlands). The northern and western portion of the survey area (approximately 1755 ha of the total survey area and 43.9 ha of the proposed exploration footprint) is located within the *Parker Range vegetation complexes* which is listed by DBCA as a Priority 3 Ecological Community. The southern portion of the survey area (approximately 136 ha of the total survey area and 0.6ha of the proposed exploration footprint) is located within the Mount Holland buffer of the *Ironcap Hills Vegetation Complexes* which is listed by the DBCA as a Priority 3 Ecological Community.

Approximately 6837 ha of the survey area is located within the Jilbadji Nature Reserve which is managed by DBCA as a Class C Reserve. The Jilbadji Nature Reserve is also listed as an Environmentally Sensitive Area (ESA) under the *Environmental Protection Act 1986*.

Based on the vegetation condition rating scale adapted from Keighery, 1994 and Trudgen, 1988 (ranging from 'pristine' to 'completely degraded'), vegetation condition ranged from 'good' to 'very good'. No introduced species were identified within the survey area.

1 **Introduction**

1.1 **Project Description**

Botanica Consulting (Botanica) was commissioned by Western Areas Limited (WSA) to undertake a detailed flora and vegetation survey and targeted flora survey of the Parker Dome Exploration Project (referred to as the 'survey area'), which is located within the Jilbadji Nature Reserve, approximately 62 km south-east of Southern Cross, Western Australia (Figure 1-1). The survey was conducted in spring from the 18th to 19th September 2018 and 18th to 19th October 2018 covering an area of approximately 7,082 ha (including 104 ha of targeted survey area). Twenty-four quadrats (20m X 20m) were established during the survey.

1.2 **Objectives**

The flora and vegetation survey was conducted in accordance with *Technical Guidance - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016* (EPA, 2016). The objectives of the detailed flora and vegetation survey were to:

- Define and map vegetation communities of the survey area to a scale appropriate for the bioregion and described according to the National Vegetation Information System (NVIS) classification (NVIS Level III– Vegetation Association);
- Record the species composition (abundance and diversity) of each vegetation community within the survey area and compile a species list for the survey area by vegetation type;
- Provide quadrat-based data from plots representative of each vegetation type (minimum of three quadrats per vegetation type) according to EPA guidelines;
- Assess the species composition of each quadrat using statistical analysis (PATN analysis);
- Determine the local and regional conservation significance of flora and vegetation within the survey area;
- Identify and record the locations of any conservation significant flora/vegetation within the survey area;
- Identify and record the locations of any introduced flora species (including Declared Plants) within the survey area;
- Provide a map showing the distribution of conservation significant flora/vegetation within the survey area;
- Define and map the condition of vegetation within the survey area in accordance with the vegetation condition rating scale adapted from Keighery, 1994 and Trudgen, 1988;
- Determine the state legislative context of environmental aspects required for the assessment;
- Assess Matters of National Environmental Significance (MNES) and indicate whether potential impacts on MNES as protected under the EPBC Act are likely to require referral of the project to the Commonwealth DotEE; and
- Determine the need for additional flora and vegetation surveys.

The objectives of the targeted flora and vegetation survey were to:

- Gather background information on flora and vegetation of conservation significance in the local area (literature review, database and map-based searches);
- Based on results of the desktop assessment, identify vegetation associations within the survey area that have the potential to contain flora/vegetation of conservation significance;
- Conduct a field survey to identify flora/vegetation of conservation significance within the project footprint; and
- Provide a GPS record and spatial map showing the distribution of flora/vegetation of conservation significance within the survey area.

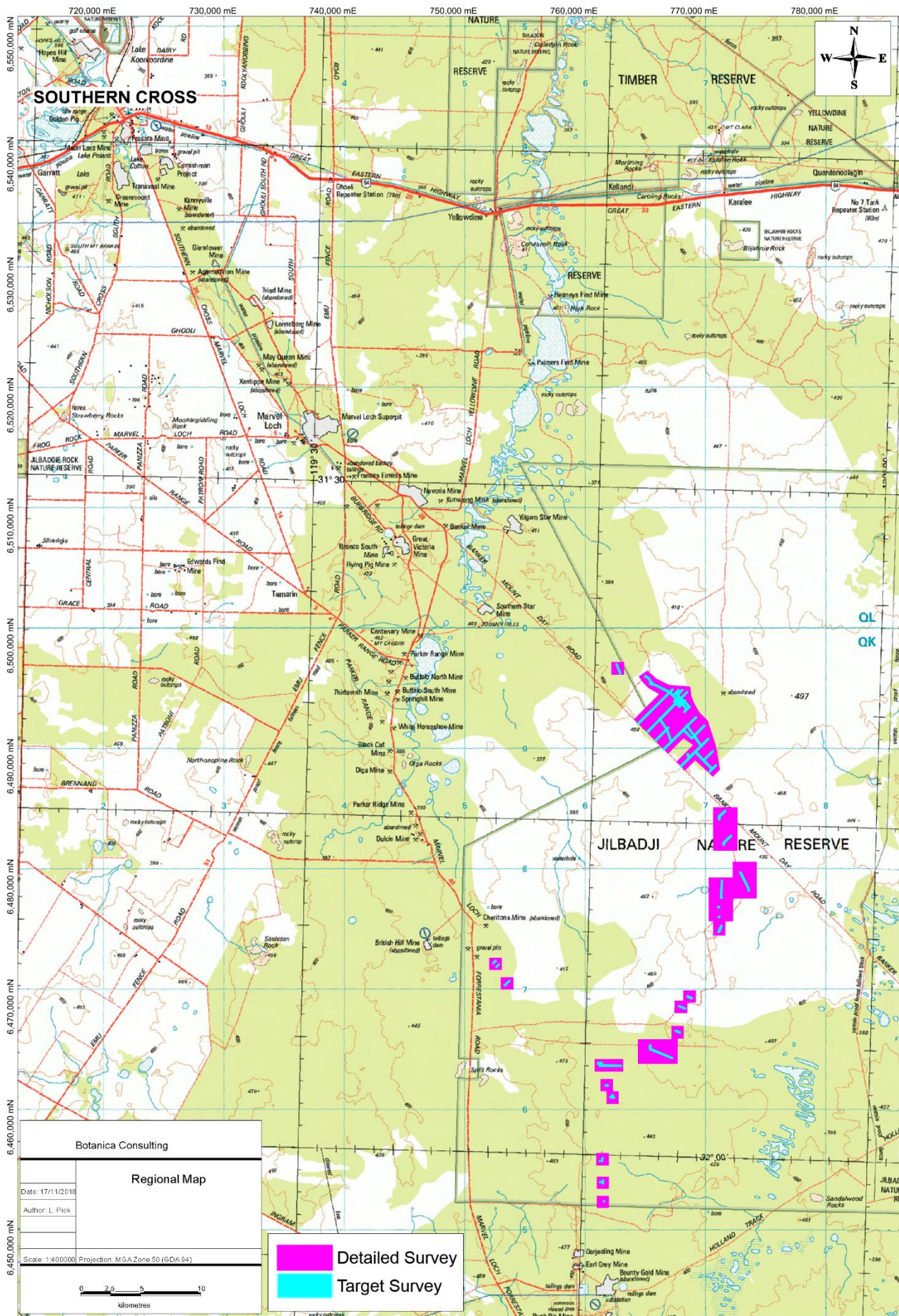


Figure 1-1: Regional map of the Parker Dome Exploration Project survey area

2 Regional Biophysical Environment

2.1 Regional Environment

Based on the Interim Biogeographic Regionalisation of Australia (IBRA), Version 7 (DotEE, 2012), the survey area is located within the Coolgardie Bioregion. The Coolgardie Bioregion is further divided into subregions with the survey area located within the Southern Cross subregion (COO2) (Figure 2-1).

The Coolgardie Bioregion forms part Southwestern Interzone of Western Australia in a region known as the Coolgardie Botanical District (Beard, 1990). The Coolgardie Bioregion is located within the Yilgarn Craton and is characterised by a granite basement which includes Archaean Greenstone intrusions in parallel belts. Drainage is ocluded. The Southern Cross subregion comprises gently undulating uplands on granite strata and broad valleys with bands of low greenstone hills (McKenzie, J.E. May and S. McKenna, 2002).

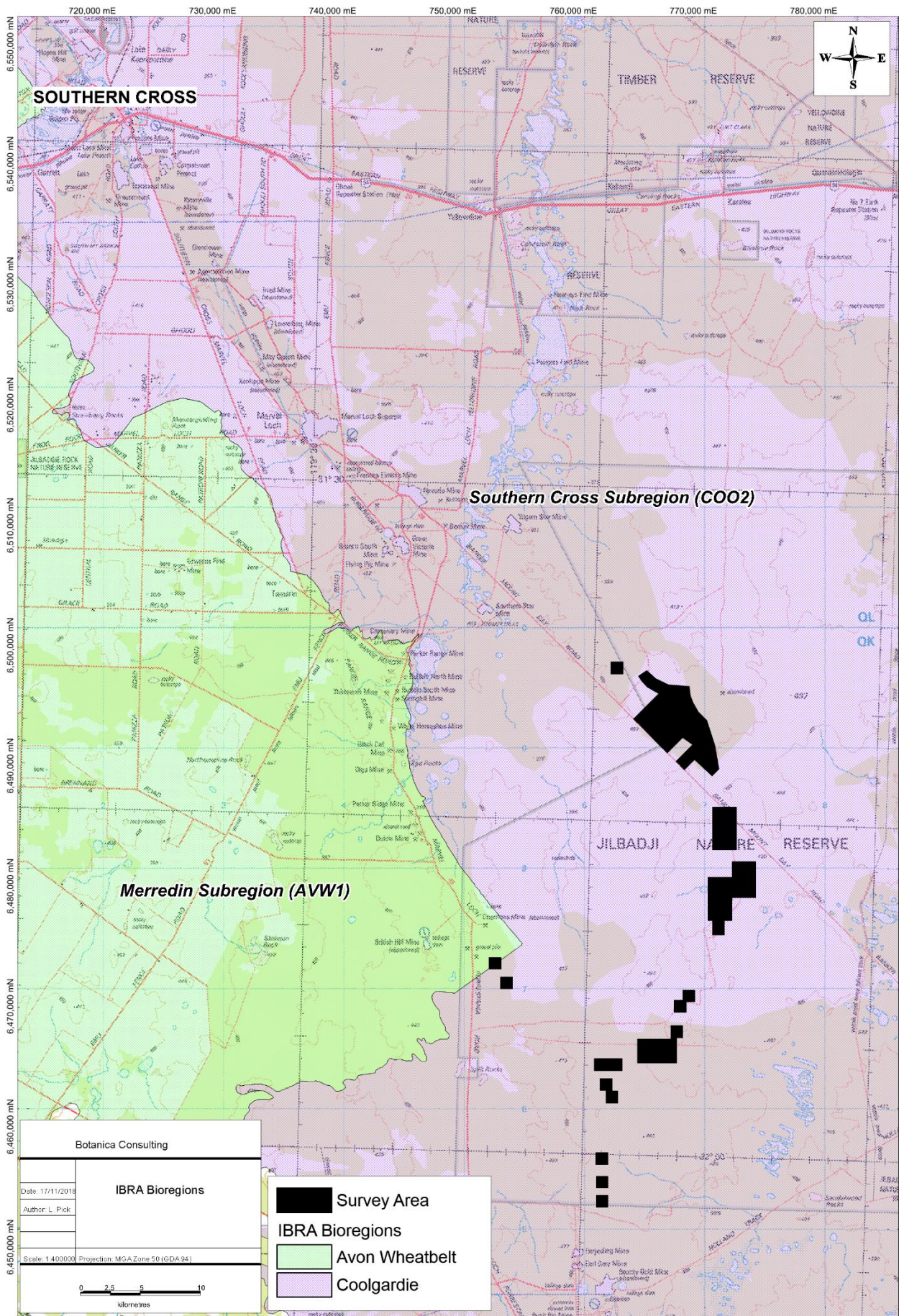


Figure 2-1: Map of IBRA Bioregions in relation to the Parker Dome Exploration Project survey area

2.2 Soils and Landscape Systems

Based on geographic information provided by DAFWA (2014), the survey area is located within the Southern Cross Zone (261) and Norseman Zone (266) of the Kalgoorlie Province (26).

The Kalgoorlie Province is characterised by undulating plains (with some sandplains, hills and salt lakes) on the granitic rocks and greenstone of the Yilgarn Craton. Soils include calcareous loamy earths and red loamy earths with some Salt Lake soils, red deep sands, yellow sandy earths, shallow loams and loamy duplexes. Vegetation is dominated by Eucalypt Woodlands with some Acacia-Casuarina Thickets, Mulga Shrublands, Halophytic Shrublands and Spinifex Grasslands. This Province is located in the southern Goldfields between Paynes Find, Menzies, Southern Cross and Balladonia (Tille, 2006).

The Southern Cross Zone (261) is characterised by undulating plains and uplands (with some salt lake and low hills) on deeply weathered mantle, colluvium and alluvium over greenstone and granitic rocks of the Yilgarn Craton. Soils include calcareous loamy earths, red and yellow loamy earths and alkaline deep and shallow sandy duplexes with some yellow sandy earths, salt lake soils, yellow deep sands and red shallow loamy duplexes. Vegetation is dominated by Salmon Gum-Gimlet-Morrel-York Gum Woodlands with Acacia/Casuarina thickets (and some mallee, scrub-heath and halophytic shrublands). This zone is located in the eastern Wheatbelt/south western Goldfields between Bullfinch and Mt Holland.

The Norseman Zone (266) is characterised by undulating plains and uplands (with some sandplains and salt lakes) on granitic rocks of the Yilgarn Craton. Soils include calcareous loamy earths, yellow sandy and loamy earths, red loamy earths, red deep sands and salt lake soils. Vegetation includes Salmon gum-redwood-merrit-red mallee-gimlet woodland with Acacia-Casuarina thickets (and some mulga shrublands and spinifex grasslands). This zone is located in the southern Goldfields between Koolyanobbing, Menzies, Zanthus (Trans-Australian Railway), Norseman and Lake Hope.

The Southern Cross Zone (261) and Norseman Zone (266) are further divided into soil landscape systems within the survey area described in Table 2-1 and shown in Figure 2-2 (ASRIS, 2014).

Table 2-1: Soil Landscape Systems within the Parker Dome Exploration Project survey area

Zone	Landscape System/ Mapping Unit	Description
Southern Cross Zone (261) Norseman Zone (266)	AC1	Gently sloping to gently undulating plateau areas, or uplands, on granites, gneisses, and allied rocks, with long gentle slopes and, in places, abrupt erosional scarps
Southern Cross Zone (261)	Ya28	Sandy plains with some clay pans and small salt lakes, dunes, and lunettes
	DD15	Undulating plains with some low dunes, seasonal lakes, and clay pans
	My44	Undulating ridge and low hilly terrain with some mesas and buttes and small valley plains

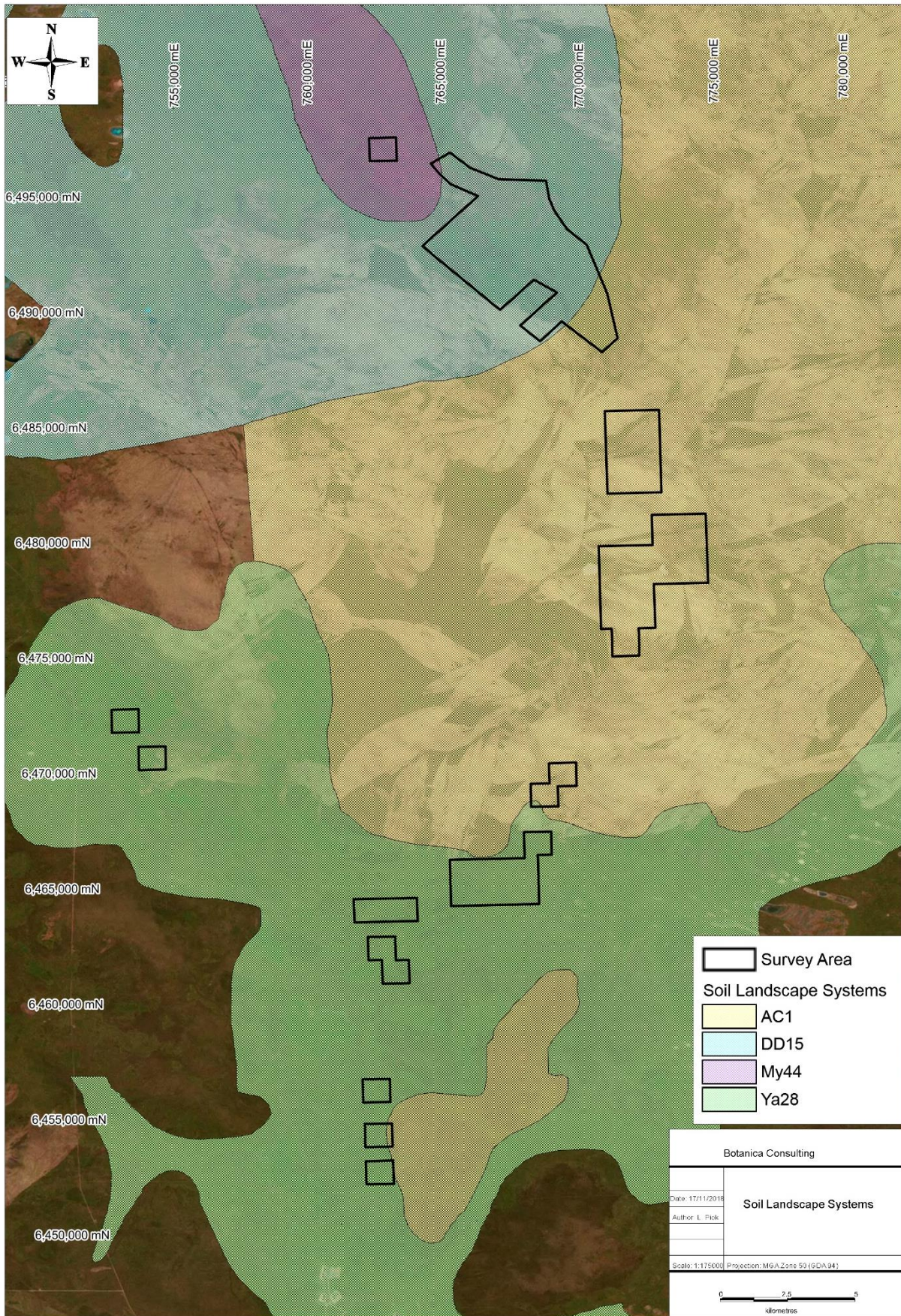


Figure 2-2: Map of Soil Landscape Systems within the Parker Dome Exploration Project survey area

2.3 Remnant Vegetation

The DAFWA GIS file (2011) indicates that the survey area is located within Pre-European Beard vegetation associations of the Boorabbin, Parker and Skeleton Rock systems. The extent of these vegetation associations as specified in the *2017 Statewide Vegetation Statistics* (DBCA, 2017) is provided in Table 2-2 and shown in Figure 2-3.

Areas retaining less than 30% of their pre-European vegetation extent generally experience exponentially accelerated species loss, while areas with less than 10% are considered “endangered” (EPA, 2000). Development within the survey area will not significantly reduce the extent of pre-European vegetation.

Table 2-2: Remaining Beard Vegetation Associations within Western Australia (DBCA, 2017)

Vegetation association	Pre-European Extent (Ha)	Current Extent (Ha)	Pre-European Extent Remaining (%)	% of Current Extent Within DBCA Managed Lands	Vegetation Description (Beard, 1990)
Boorabbin 125*	39,894.69	37,375.38	93.69	17.97	Bare areas; salt lakes
Boorabbin 128*	35,707.40	35,660.48	99.87	22.36	Bare areas; rock outcrops
Boorabbin 141*	201,294.43	181,582.78	90.21	17.79	Medium woodland; York gum, Salmon Gum & Gimlet
Boorabbin 511*	176,715.20	176,654.68	99.97	27.05	Medium Woodland; Salmon gum & Morrel
Boorabbin 1148*	167,698.36	165,554.23	98.72	19.75	Shrublands; scrub-heath in the Coolgardie Region
Boorabbin 1413*	498,204.38	493,256.65	99.01	21.66	Shrublands; Acacia, Casuarina & Melaleuca Thicket
Parker 1068*	35,759.56	31,547.04	88.22	8.17	Medium Woodland; Salmon Gum, Morrel, Gimlet & <i>Eucalyptus sheathiana</i>
Skeleton Rock 8*	2,066.85	2,066.85	100.00	100.00	Medium Woodland; Salmon Gum & Gimlet
Skeleton Rock 128*	253.81	253.81	100.00	53.91	Bare areas; rock outcrops
Skeleton Rock 511*	6,447.47	6,447.47	100.00	99.12	Medium Woodland; Salmon Gum & Morrel
Skeleton Rock 519*	56,013.48	55,381.93	98.87	27.89	Shrublands; Mallee Scrub, <i>Eucalyptus eremophila</i>
Skeleton Rock 1068*	10,041.81	10,040.54	99.99	36.82	Medium Woodland; Salmon Gum, Morrel, Gimlet & <i>Eucalyptus sheathiana</i>
Skeleton Rock 1148*	5,259.05	5,257.56	99.97	83.43	Shrublands; scrub-heath in the Coolgardie Region
Skeleton Rock 1413*	2,824.41	2,824.41	100.00	88.71	Shrublands; Acacia, Casuarina & Melaleuca Thicket

*Low Reservation Priority according to the International Union for Conservation of Nature (IUCN)

Vegetation of the Southern Cross subregion in the Coolgardie Botanical District is predominantly Eucalypt Woodlands, Mallees, Acacia Thickets And Scrub-Heaths on sandplains. Diverse Eucalypt Woodlands occur around salt lakes, on the low greenstone hills, valley alluvials and broad plains of calcareous earths. Salt lakes support dwarf Shrublands Of Samphire. The area is rich in endemic Acacias (Cowan, 2001).

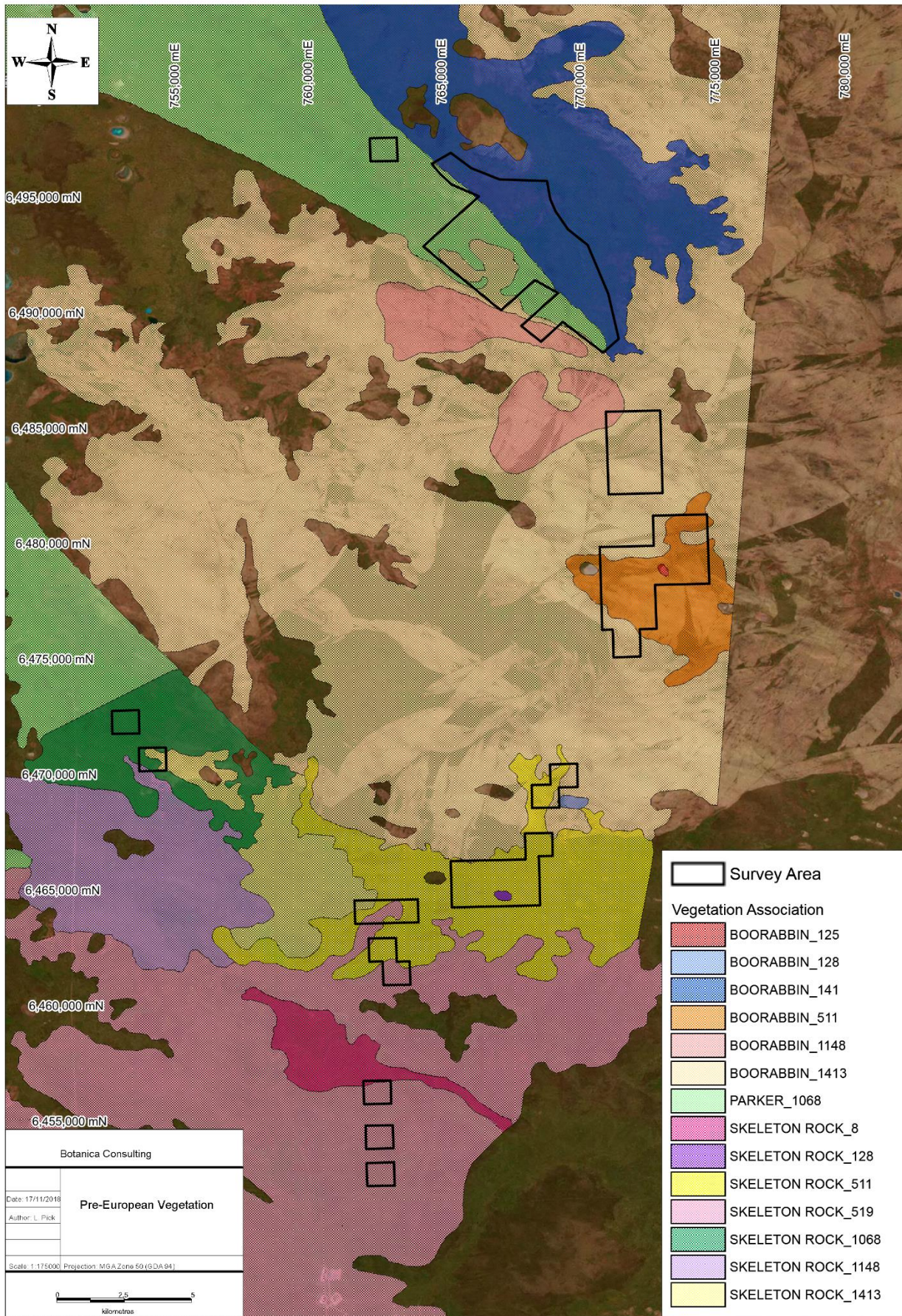


Figure 2-3: Pre-European Vegetation Associations within the Parker Dome Exploration Project survey area

2.4 Climate

The climate of the Southern Cross subregion is characterised as arid to semi-arid Mediterranean with an annual rainfall of 200-300mm (Beard, 1990; Cowan, 2001). Rainfall data for the Southern Cross weather station (#12320) located approximately 62km north-east of the survey area is shown in Figure 2-4 and Figure 2-5 (BoM, 2018).

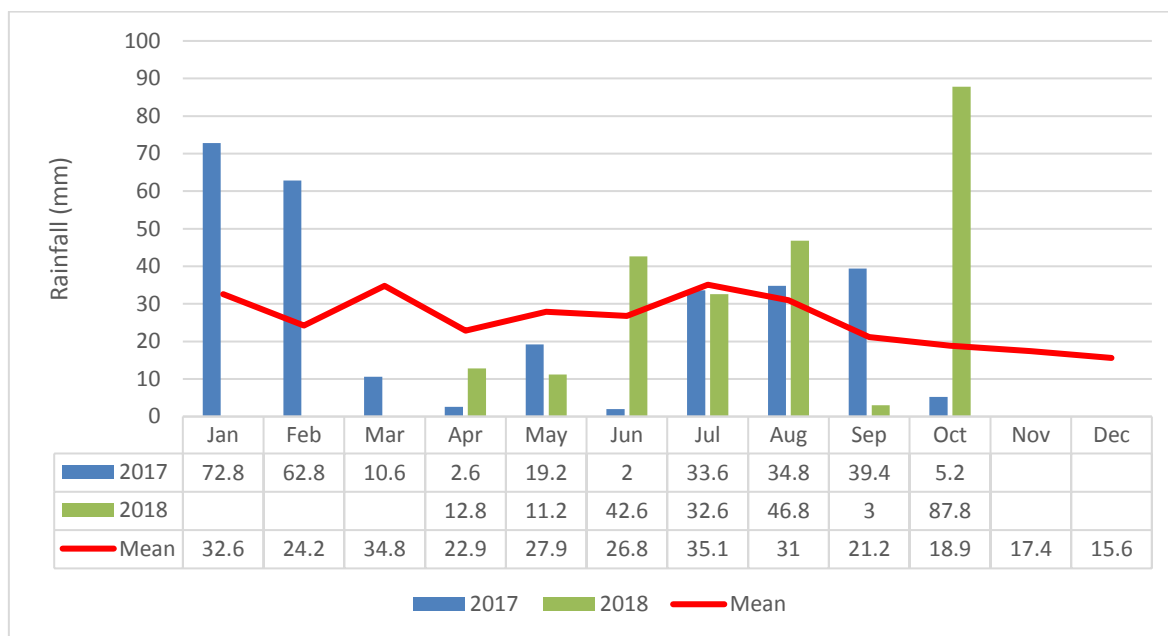


Figure 2-4: Monthly rainfall (January 2017 to October 2018) for the Southern Cross weather station (#12320) (BoM, 2018a)

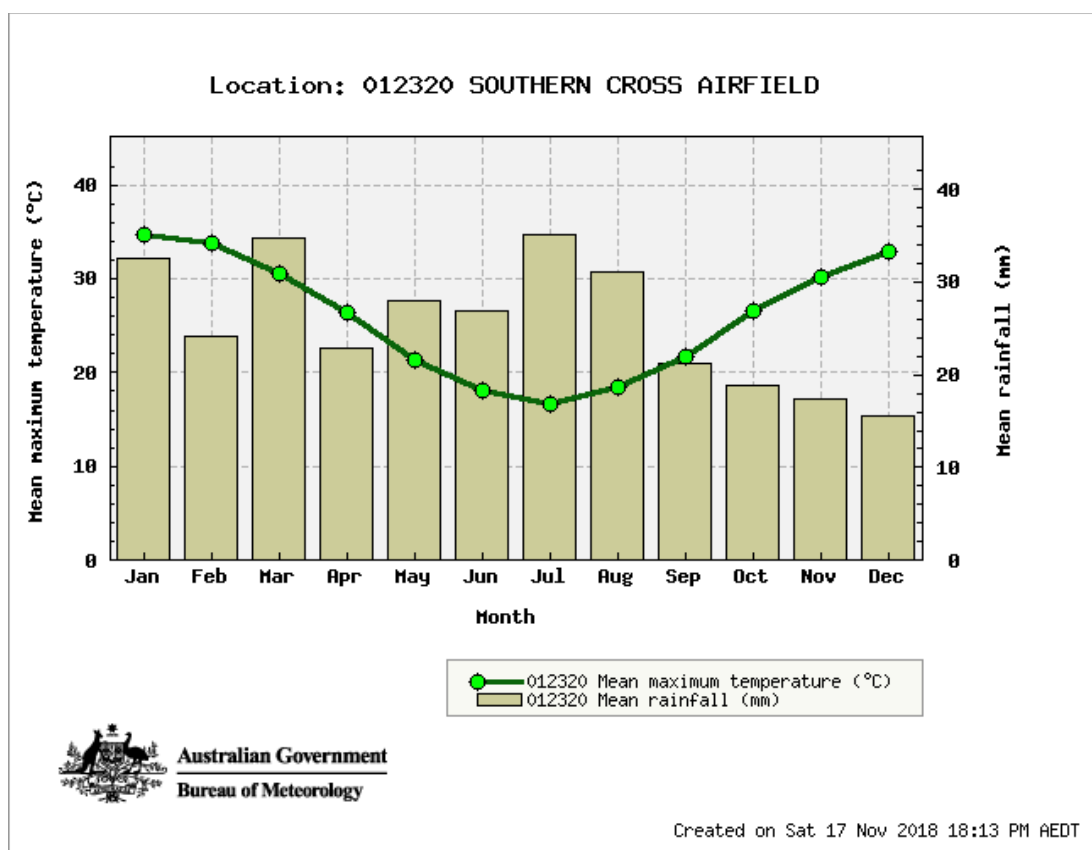


Figure 2-5: Climate Data for the Southern Cross weather station (#12320) (BoM, 2018a)

2.5 Hydrology

According to the Geoscience Australia database (2001) there are no intermittent (non-perennial) drainage lines or inland water sources (lakes, playas etc.) within the survey area. According to the Bureau of Meteorology (2018b) *Groundwater Dependent Ecosystem (GDE) Atlas*, the southern portion of the survey area has high potential for an aquatic GDE and moderate potential for a terrestrial GDE. This potential GDE is described as follows: Undulating plains with some sandplains, ferruginous breakaways; ridges of metamorphic rocks and granitic hills and rises; calcretes, large salt lakes and dunes along valleys. A map showing the regional hydrology and potential GDEs in the local region is provided in Figure 2-6.

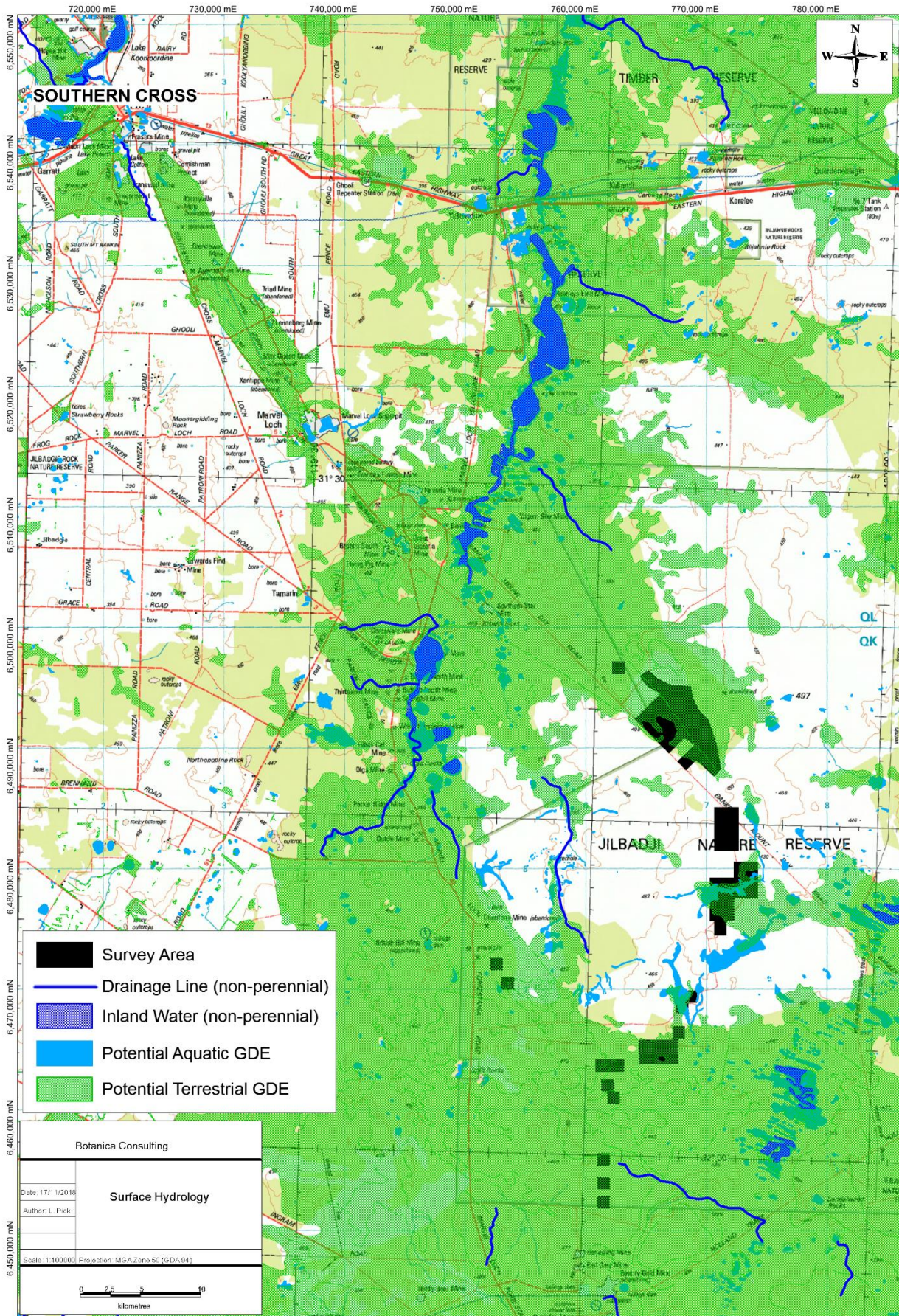


Figure 2-6: Hydrology of the Parker Dome Exploration Project survey area

2.6 Land Use

The dominant land uses of the Southern Cross subregion includes native pastures (17%), Conservation Reserves (11.53%), UCL & Crown Reserves (66.74%) and Cultivation – Dry Land agriculture (2.27%) (Cowan, 2001). The survey area is located within the Jilbadji Nature Reserve which is managed by DBCA (Figure 1-1).

The survey area also lies within the Great Western Woodlands. The Great Western Woodlands is considered by The Wilderness Society of WA to be of global biological and conservation importance as one of the largest and healthiest temperate woodlands on Earth, containing many endemic species. The region covers almost 16 million hectares, 160,000 square kilometers, from the southern edge of the Western Australian Wheatbelt to the pastoral lands of the Mulga country in the north, the inland deserts to the northeast, and the treeless Nullarbor Plain to the east (Figure 2-7).

The area provides an eastward connection between southwest forests and inland deserts (Gondwana Link) as well as linking the north-west passage to Shark Bay. The majority of the Great Western Woodlands is unallocated crown land (61.1%) with other interests including pastoral leases (20.4%), conservation reserves (15.4%) unallocated crown land ex pastoral managed by the DBCA (2%) and private land (approximately 1%) (Watson *et. al.*, 2008).

No specific management strategy applies to the Great Western Woodlands, rather an approach to conservation which occurs across all land tenures and when different stakeholders work together with biodiversity in mind. The central component of this approach is to identify and conserve key large-scale, long term ecological processes that drive connectivity between ecosystems and species. The Great Western Woodlands currently includes towns, highways, roads, railways, private property, Crown Reserves, agricultural activities and mining tenements.

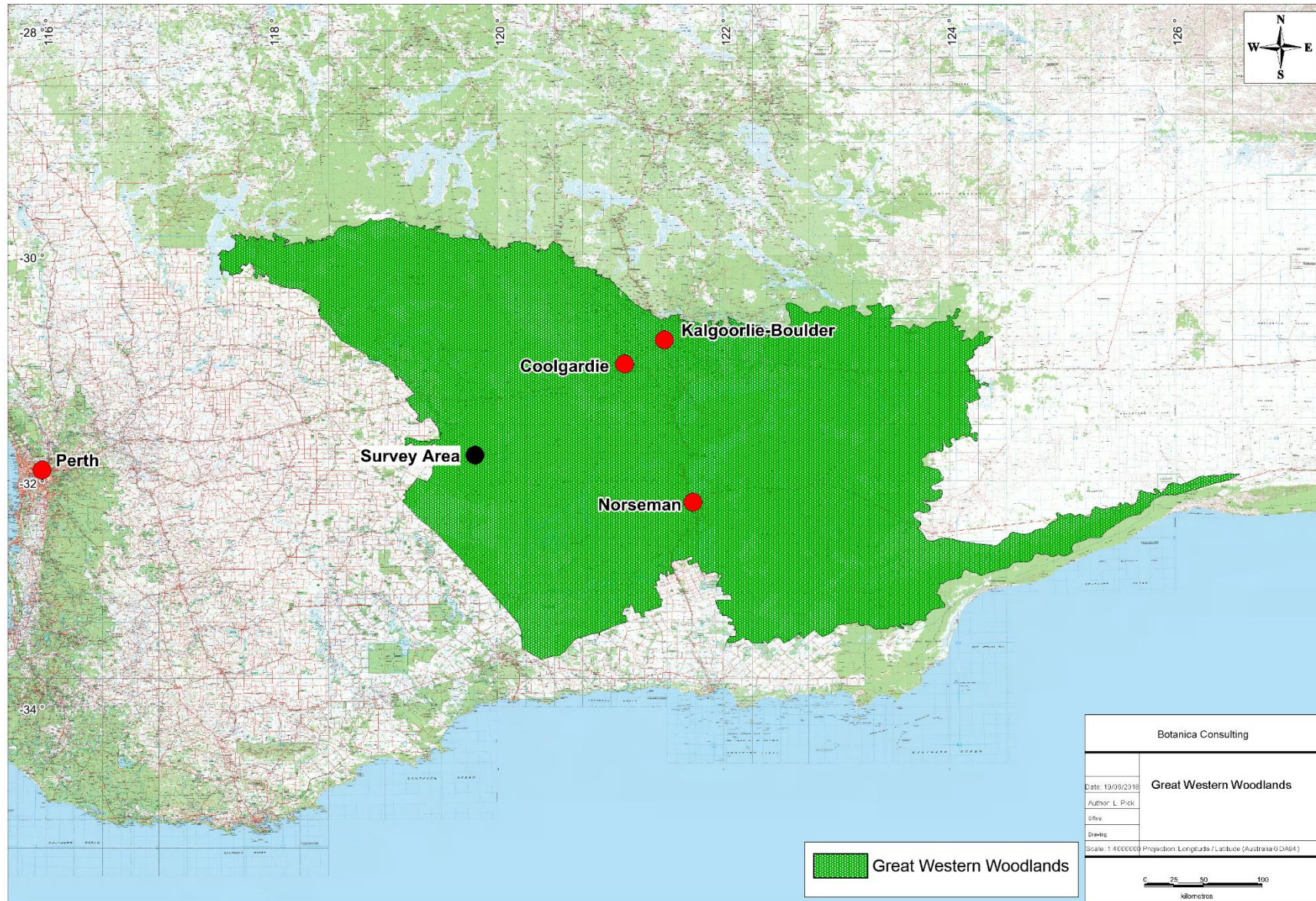


Figure 2-7: Location of survey area within the Great Western Woodlands (survey area not to scale)

3 Survey Methodology

3.1 Desktop Assessment

Prior to the field assessment a literature review was undertaken of previous flora and vegetation assessments conducted within the local region. Documents reviewed included:

- Botanica Consulting (2010), *Flora and Vegetation of the Parker Range Region*. Prepared for Cazaly Resources Ltd;
- Botanica Consulting (2016a), *Level 1 flora survey Martins Prospect*. Prepared for Hanking Gold Mine Limited;
- Botanica Consulting (2016b), *Level 2 flora and fauna survey Redwing Project*. Prepared for Hanking Gold Mine Limited;
- Botanica Consulting (2017), Targeted search for flora of conservation significance- Jilbadji Nature Reserve. Prepared for Western Areas Limited;
- Gibson, N and Lyons, M.N. (1998), *Flora and Vegetation of the Eastern Goldfields Ranges: Part 3. Parker Range*;
- MWH, A. (2014) *Cheritons Find Level 1 Vegetation, Flora and Targeted Flora Survey*, CHER-VO-14001;
- Newbey, K.R., How, R.A., Dell, J., Muir, B.G. & Hnatiuk, R.J., (1988), *Biological survey of the Eastern Goldfields: Part 4 Lake Johnston-Hyden study area*. Prepared for Western Areas Limited;
- PEK Enviro (2016), Forrester Nickel Operation Regional Exploration Program Level 1 vegetation and flora survey Parker Dome project in the Jilbadji Nature Reserve;
- Recon Environmental (2007), *Burbidge Vegetation Survey*. Prepared for St Barbara Limited;
- RPS Environment and Planning Pty Ltd. (2012), *Pre-clearing targeted significant flora and malleefowl survey*, Report prepared for Audax Minerals Pty Ltd, September 2012; and
- RPS, G. (2012), *Pre-clearing Targeted Significant Flora and Mallee Fowl Survey*, R1224501.

Searches of the following databases were undertaken to aid in the compilation of a list of flora and fauna within the survey area:

- DBCA NatureMap Database (DBCA, 2018);
- DBCA's Threatened and Priority Flora search (DBCA, 2018b); and
- DotEE Protected Matters search tool (DotEE, 2018).

The Naturemap and Protected Matters searches were conducted for an area encompassing a 20km radius of the centre coordinates; 31° 53' 10" S, 119° 50' 00" E.

It should be noted that these lists are based on observations from a broader area than the assessment area (20km radius) and therefore may include taxa not present. The databases also often included

very old records that may be incorrect or in some cases the taxa in question have become locally or regionally extinct. Information from these sources should therefore be taken as indicative only and local knowledge and information also needs to be taken into consideration when determining what actual species may be present within the specific area being investigated.

The conservation significance of flora taxa was assessed using data from the following sources:

- *Environment Protection and Biodiversity and Conservation (EPBC) Act 1999*; administered by the Australian Government (DotEE);
- *Biodiversity Conservation (WC) Act 2016*. administered by the WA Government (DBCA);
- Red List produced by the Species Survival Commission (SSC) of the World Conservation Union (also known as the IUCN Red List – the acronym derived from its former name of the International Union for Conservation of Nature and Natural Resources). The Red List has no legislative power in Australia but is used as a framework for State and Commonwealth categories and criteria; and
- Priority Flora list. A non-legislative list maintained by DBCA for management purposes (released 16th January 2018).

Table 3-1 provides the definitions of conservation significant flora under the BC Act and EPBC Act.

Table 3-1: Definitions of Conservation Significant Flora

Code	Category
State categories of threatened and priority species	
Threatened Species (T) 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).	
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”. 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 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 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.
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 where “ <i>there is no reasonable doubt that the last member of the species has died</i> ”, and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Code	Category
	Published as presumed extinct under schedule 4 of the <i>Wildlife Conservation (Specially Protected Fauna) Notice 2018</i> for extinct fauna or the <i>Wildlife Conservation (Rare Flora) Notice 2018</i> for extinct flora.
EW	<p>Extinct in the Wild 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.</p>
	<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.</p>
P1	<p>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.</p>
P2	<p>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.</p>
P3	<p>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.</p>
P4	<p>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.</p>
Commonwealth categories of threatened species	
EX	<p>Extinct Taxa where there is no reasonable doubt that the last member of the species has died.</p>
EW	<p>Extinct in the Wild Taxa where it 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,</p>

Code	Category
	at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CR	Critically Endangered Taxa that are 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 are not critically endangered and is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
VU	Vulnerable Taxa which are 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.
CD	Conservation Dependent Taxa which are the focus of a specific conservation program the cessation of which would result in the species becoming vulnerable, endangered or critically endangered; or (b) the following subparagraphs are satisfied: (i) the species is a species of fish; (ii) the species is the focus of a plan of management that provides for actions necessary to stop the decline of, and support the recovery of, the species so that its chances of long term survival in nature are maximised; (iii) the plan of management is in force under a law of the Commonwealth or of a State or Territory; (iv) cessation of the plan of management would adversely affect the conservation status of the species.

A search of the DBCA PEC and TEC database was also conducted within a 40km radius of the survey area (DBCA, 2018). Table 3-2 represents the definitions of Threatened and Priority Ecological Communities.

Table 3-2: Definitions of conservation significant communities

Category Code	Category
State categories of Threatened Ecological Communities (TEC)	
PD	Presumed Totally Destroyed An ecological community will be listed as Presumed Totally Destroyed if there are no recent records of the community being extant and either of the following applies: <ul style="list-style-type: none"> records within the last 50 years have not been confirmed despite thorough searches or known likely habitats or; all occurrences recorded within the last 50 years have since been destroyed.
CR	Critically Endangered An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future, meeting any one of the following criteria: The estimated geographic range and distribution has been reduced by at least 90% and is either continuing to decline with total destruction imminent, or is unlikely to be substantially rehabilitated in the immediate future due to modification;

Category Code	Category
	<p>The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;</p> <p>The ecological community is highly modified with potential of being rehabilitated in the immediate future.</p>
EN	<p>Endangered</p> <p>An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. The ecological community must meet any one of the following criteria:</p> <p>The estimated geographic range and distribution has been reduced by at least 70% and is either continuing to decline with total destruction imminent in the short-term future, or is unlikely to be substantially rehabilitated in the short-term future due to modification;</p> <p>The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area;</p> <p>The ecological community is highly modified with potential of being rehabilitated in the short-term future.</p>
VU	<p>Vulnerable</p> <p>An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing high risk of total destruction in the medium to long term future. The ecological community must meet any one of the following criteria:</p> <p>The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated;</p> <p>The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution;</p> <p>The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.</p>
Commonwealth categories of Threatened Ecological Communities (TEC)	
CE	<p>Critically Endangered</p> <p>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).</p>
EN	<p>Endangered</p> <p>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).</p>
VU	<p>Vulnerable</p> <p>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).</p>
Priority Ecological Communities (PEC)	
P1	<p>Poorly-known ecological communities</p> <p>Ecological communities with apparently few, small occurrences, all or most not actively managed for conservation (e.g. within agricultural or pastoral lands, urban areas, active mineral leases) and for which current threats exist.</p>
P2	<p>Poorly-known ecological communities</p>

Category Code	Category
	Communities that are known from few small occurrences, all or most of which are actively managed for conservation (e.g. within national parks, conservation parks, nature reserves, State forest, un-allocated Crown land, water reserves, etc.) and not under imminent threat of destruction or degradation.
P3	<p>Poorly known ecological communities</p> <p>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:</p> <p>Communities known from a few widespread occurrences, which are either large or within significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat, or;</p> <p>Communities made up of large, and/or widespread occurrences, that may or not be represented in the reserve system, but are under threat of modification across much of their range from processes such as grazing and inappropriate fire regimes.</p>
P4	<p>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.</p>
P5	<p>Conservation Dependent ecological communities</p> <p>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.</p>

3.2 Field Assessment

Botanica conducted a detailed flora and vegetation survey and targeted flora survey of the Parker Dome Exploration Project (referred to as the 'survey area') from the 18th to 19th September 2018 and 18th to 19th October 2018. The detailed survey covered an area of approximately 7,082 ha. Twenty-four quadrats (20m X 20m) were established during the survey. A targeted survey for Threatened/Priority Flora was conducted over an area of 104 ha from the 18th to 19th September 2018 and 18th to 19th October 2018.

Prior to the commencement of field work, aerial photography was inspected and obvious differences in the vegetation assemblages were identified. The different vegetation communities identified were then inspected during the field survey to assess their validity. A handheld GPS unit was used to record the coordinates of the boundaries between vegetation communities. At each sample point, the following information was recorded:

- GPS location;
- Photograph of vegetation;
- Dominant taxa for each stratum;
- All vascular taxa (including annual taxa);
- Landform classification;
- Vegetation condition rating;
- Collection and documentation of unknown plant specimens; and
- GPS location, photograph and collection of flora of conservation significance if encountered.

Unknown specimens collected during the survey were identified with the aid of samples housed at the Botanica Herbarium and WAHERB. Vegetation associations were classified in accordance with the NVIS Vegetation Association (NVIS Level III) classification. Presence/absence data of taxa from sample sites were used to compile the representative floristic groups. The survey area was traversed by five people via 4WD, all-terrain vehicle, and on foot (Figure 3-1).

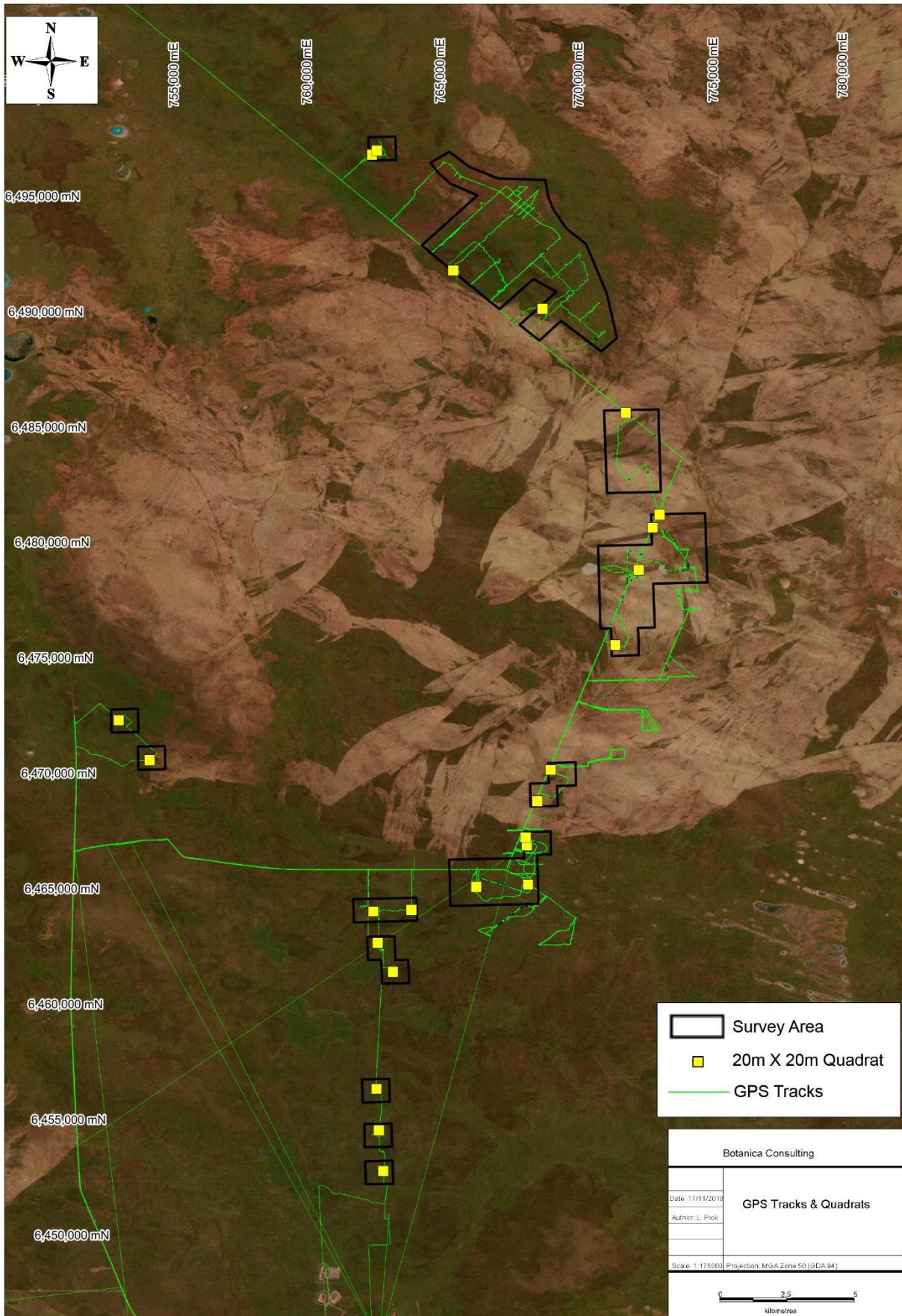


Figure 3-1: Quadrat locations, survey area boundary and GPS tracks traversed throughout the Parker Dome Exploration Project survey area

3.2.1 Sampling Quadrats

Twenty-four 20m x 20m quadrats were established within the survey area (Figure 3-1). The objective was to have at least three quadrats per vegetation type to capture the floristic variations within the survey area. The quadrats were established by inserting metal pickets into the NW corner, and measuring the length of the resultant boundaries to verify the quadrats were 20m x 20m (square quadrats).

Following their establishment and boundary verification, the location of each quadrat was recorded by GPS (Appendix 5) photographed (Appendix 7) and all vascular plants within the quadrat were recorded (Appendix 6). This included recording of dominant taxa from the upper, middle and lower stratum, and sampling of all unknown taxa. Unknown taxa were identified using Botanica's own reference herbarium and relevant taxonomical keys or by a taxonomic consultant. Data on level of disturbance, presence of coarse fragments on surface, topographical position, elevation, aspect, percentage litter, percentage bare ground, percentage surface rock (bedrock and surface deposits), soil types (colour, profile, field texture and surface type), and vegetation structure were collected from each quadrat (Appendix 6). Methods of recording data from these quadrats largely follow those outlined in CSIRO's *Australian Soil and Land Survey Field Handbook* (McDonald *et al.* 1998) and in accordance with EPA Guidelines (2016).

3.2.2 Targeted Flora Survey

A targeted search for flora of conservation significance (Priority and Threatened Flora) was conducted within the Parker Dome Exploration Project footprint (covering an area of ~104 ha). The footprint was systematically searched on foot by four Botanica staff members to identify and record the locations of Threatened and Priority Flora. All locations of Threatened and Priority Flora were recorded using a hand-held GPS and a simple plant count (not differentiated between juvenile/mature plants, flowering or non-flowering plants) was conducted for each record.

3.2.3 Personnel Involved

Jim Williams	- Environmental Consultant/ Director (Diploma of Horticulture)
Andrea Williams	- Environmental Consultant/ Director (BSc Masters)
Lauren Pick	- Environmental Consultant (BSc Zoology & Conservation Biology)
Haydn Davies	- Environmental Consultant (Bachelor Environmental Management)

3.2.4 Scientific Licences

Table 3-3: Scientific Licences of Botanica Staff coordinating the survey

Licensed Staff	Permit Number	Valid Until
Jim Williams	SL012391 (Licence to take flora for scientific purposes) CE005789 (Regulation 4 Permit Jilbadji Nature Reserve)	26/05/2018 to 27/05/2019
Andrea Williams	SL012390 (Licence to take flora for scientific purposes) CE005789 (Regulation 4 Permit Jilbadji Nature Reserve)	26/05/2018 to 27/05/2019
Lauren Pick	SL012392 (Licence to take flora for scientific purposes) CE005789 (Regulation 4 Permit Jilbadji Nature Reserve)	26/05/2018 to 27/05/2019

3.3 Data Analysis Tools

Once the survey was completed the data obtained was analysed to generate a vegetation map. The statistical program PATN was used to assess species composition of the quadrats (Appendix 8).

3.3.1 PATN Analysis

The PATN software package was used to assess the similarities/ dissimilarities between quadrats based on presence/absence of species. Annual taxa were removed from the data prior to analysis (three annual taxa). Species reconciliation eliminated those sterile taxa that could not be fully identified from the analysis (two taxa). Singleton taxa were excluded from the analysis (53 taxa). Of the 135 taxa recorded within the quadrats, 77 taxa were used in the analysis.

The analysis produced a quantitative estimate of the relationship between species composition of each quadrat. The classifications were based upon a Bray-Curtis association matrix using a flexible Unweighted Pair Group Arithmetic Mean (UPGMA) method (with a beta value of -0.1) which standardises the data enabling the analysis to be completed. Semi-strong hybrid (SSH) ordination of the quadrat is then undertaken to show spatial relationships between groups and to elucidate possible environmental correlates with the classification.

The analysis also produced a stress value which is a measure of the 'strength' of the analysis (i.e. how well the quadrats are grouped together into the appropriate floristic groups). The lower the stress value the greater the strength of the analysis with a value of less than 0.3 showing that the analysis appropriately grouped quadrats. A stress value greater than 0.3 suggests that the analysis was unable to group quadrats appropriately due to extraneous variables (i.e. other factors influencing differences in floristic groups other than species composition e.g. fire, clearing disturbance etc.).

3.3.2 EstimateS

EstimateS software was used to estimate species richness present using the Chao2 richness estimator. For any number of samples, the estimator uses the existing pattern of species accumulation to estimate the true number of species at a site. The estimators tend to under-estimate species number when sample size is small, hence the estimated number of true species can be seen to increase with sample size. This software was also used to compute Coleman rarefaction curves estimates which were used to calculate species accumulation curves.

3.4 Flora Survey Limitations and Constraints

It is important to note that flora surveys will entail limitations notwithstanding careful planning and design. Potential limitations are listed in Table 3-4.

Table 3-4: Limitations and constraints associated with the flora and vegetation survey

Variable	Potential Impact on Survey	Details
Access problems	Not a constraint	The survey was conducted via 4WD, ATV and on foot. Access tracks within the survey area was limited.
Competency/ Experience	Not a constraint	The Botanica personnel that conducted the survey were regarded as suitably qualified and experienced. Coordinating Botanist: Jim Williams Field Staff: Jim Williams, Andrea Williams, Lauren Pick and Haydn Davies

Variable	Potential Impact on Survey	Details
		Data Interpretation: Jim Williams and Lauren Pick
Timing of survey, weather & season	Not a constraint	Fieldwork was conducted in September/October 2018 consistent with the EPA recommended approximate timing (Spring). Majority of the flora was in flower, annual species were present and short-lived species such as Orchids were also present during the survey. Supplementary fieldwork should be scheduled after Autumn rains in accordance with EPA guidelines.
Area disturbance	Minor constraint	The majority of the survey area is in very good condition and comprised of native vegetation. Disturbance in the area was a result of exploration and access tracks and multiple fires.
Survey Effort/ Extent	Not a constraint	Survey intensity was appropriate for the size/significance of the area with a detailed survey completed to identify vegetation communities and flora of conservation significance. A targeted search to identify all Priority Flora populations was conducted within the Project footprint.
Availability of contextual information at a regional and local scale	Minor constraint	Conservation significant flora database searches provided by the DBCA were used to identify any potential locations of Threatened/Priority Flora species. BoM, DWER, DPIRD, DBCA and DotEE databases were reviewed to obtain appropriate regional desktop information on the biophysical environment of the local region. Botanica have conducted a number of surveys within the Southern Cross region and were also able to obtain information about the area from previous research conducted within the area. Results of previous flora assessments in the local area were reviewed to provide context on the local environment.
Data Analysis	Minor constraint	Botanica staff conducting the PATN statistical analyses are not statistical analysts and have basic statistics training. These analyses are used to provide basic information on the relationships between vegetation communities delineated in the field.
Completeness	Not a constraint	In the opinion of Botanica, the survey area was covered sufficiently in order to identify vegetation assemblages. Survey work was conducted in optimal flowering period (Spring). Many of the plants during the survey were in flower and many annual species were present. It is estimated that approximately >90% of the flora within the survey area were able to be fully identified. The vegetation associations for this study were based on visual descriptions of locations in the field. The distribution of these vegetation associations outside the study area is not known, however vegetation associations identified were categorised via comparison to vegetation distributions throughout WA given on NVIS (DotEE, 2017).

4 Results

4.1 Desktop Assessment

4.1.1 Literature Review

Flora and vegetation surveys, assessments and reviews have been undertaken in nearby areas in the past, though not all are publicly available and some could not be referenced. The most significant of those available have been used as the primary reference material for the current vegetation assessment (Table 4-1).

Table 4-1: Previous Flora and Vegetation Surveys within the Parker Dome Exploration Project and surrounding area

Author & Year	Vegetation/Landforms	Flora of Conservation Significance
Newbey and Hnatiuk, 1988	<p>14 vegetation assemblages were identified;</p> <ol style="list-style-type: none"> 1. Mixed Eucalyptus Woodland, 2. <i>Eucalyptus salmonophloia</i> Woodland; 3. <i>Eucalyptus salubris</i> Woodland; 4. <i>Allocasuarina</i> Shrubland; 5. Open Mallee Woodland; 6. <i>Acacia</i> Shrubland; 7. Granite complex; 8. <i>Callitris columellaris</i> Llow Woodland; 9. <i>Dodonaea angustissima</i> Tall Shrubland; 10. <i>Tecticornia</i> Llow Shrubland; 11. <i>Callitris preissii</i> Tall Shrubland; 12. <i>Grevillea</i> Shrubland; 13. <i>Melaleuca uncinata</i> Tall Shrubland; and 14. <i>Hakea pendula</i> Tall Shrubland. 	<p><i>Banksia sphaerocarpa</i> var. <i>dolichostyla</i> (T)</p>
Gibson and Lyons, 1998	<p>Six communities were recorded within the Parker Range greenstone belt:</p> <p>Community type 1 occupies the sandy soils at the base of ridges and low rises. It is generally dominated by <i>Eucalyptus sheathiana</i> with <i>E. transcontinentalis</i> and/or <i>E. eremophila</i> as co-dominants. The most typical understorey species were <i>Daviesia argillacea</i> and <i>Grevillea huegelii</i>.</p> <p>Community type 2 generally dominated <i>Eucalyptus longicornis</i>. Other eucalypts that occurred as co-dominants included <i>E. corrugata</i> and <i>E. salubris</i>. At one site this community was dominated by <i>E. myriadena</i>. This community occupied the broad flats.</p> <p>Community type 3 also occurred on the broad flats within the greenstone belt. It was usually dominated by <i>Eucalyptus salmonophloia</i> and <i>E. salubris</i>. Typical understorey species of this community include <i>Eremophila oppositifolia</i>, <i>Acacia concolorans</i> ms, <i>Dodonaea stenozyga</i> and <i>Scaevola spinescens</i>.</p> <p>Community type 4 generally dominated by <i>Allocasuarina acutivalvis</i> and <i>Allocasuarina corniculata</i>. At some sites <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> also occurred, but this species was more typical of community type 5. Other species typical of this community type included <i>Baeckea elderiana</i> and <i>Thryptomene kochii</i>, further illustrating the sandy nature of these sites.</p> <p>Community type 5 almost totally lacked <i>Allocasuarina corniculata</i>, being replaced by <i>A. campestris</i>, while <i>Allocasuarina acutivalvis</i> was still a common element. <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> and/or <i>Eucalyptus loxophleba</i> tended to dominate these sites while <i>Hakea</i></p>	<ol style="list-style-type: none"> 1. <i>Acacia asepala</i> (P2) 2. <i>Acacia concolorans</i> (P2) 3. <i>Drummondia wilsonii</i> (P1) 4. <i>Euryomyrtus</i> sp. Parker Range (N. Gibson & M. Lyons 2269) (P1) 5. <i>Gnephosis intonsa</i> (P3) 6. <i>Grevillea phillipsiana</i> (P1) 7. <i>Hakea pendens</i> (P3) 8. <i>Hemigenia obovata</i> (P1)

Author & Year	Vegetation/Landforms	Flora of Conservation Significance
	<p><i>pendens</i>, <i>Phebalium tuberosum</i>, and <i>Westringia cephalantha</i> were common understorey elements. This community type was associated with laterites, breakaways and the massive gossanous caps of the Mt Caudan area.</p> <p>Community type 6 restricted to a small area of a massive decomposing laterite and granite in the Parker Range. The area was dominated by low trees of <i>Callitris glaucophylla</i> and the previously unknown <i>Isopogon robusta</i> ms.</p>	
Recon Environmental, 2007	<p>Ten vegetation communities were identified within the Burbridge survey area. These communities reflect underlying geology, landforms and soils, and can be grouped into six main types following Gibson and Lyons descriptions of the communities of the Parker Ranges:</p> <ol style="list-style-type: none"> 1. Sandy Soils base of ridges/low rises (<i>Eucalyptus sheathiana</i>, <i>E. transcontinentalis</i>, &/or <i>E. eremophila</i> with <i>Daviesia argillacea</i> and <i>Grevillea huegelii</i>. (ESSS) 2. <i>Eucalyptus longicornis</i> (<i>E. corrugata</i> and <i>E. salubris</i>) on broad flats. (ELWF) 3. <i>Eucalyptus salmonophloia</i> and <i>E. salubris</i> with <i>Eremophila oppositifolia</i>, <i>Acacia concolorans</i> (P2), <i>Dodonaea stenozyga</i>, <i>Scaevola spinescens</i> on broad flats. (ESWF) 4. <i>Allocasuarina acutivalvis</i> and <i>A. corniculata</i> (<i>Eucalyptus capillosa</i> ssp. <i>polyclada</i>), over <i>Baeckea elderiana</i> and <i>Thryptomene kochii</i> on deeper sandy soils. (MASS, ASSS, MMSS, DMMS) 5. <i>Allocasuarina acutivalvis</i> and <i>A. campestris</i> with <i>Eucalyptus capillosa</i> ssp. <i>polyclada</i> and <i>E. loxophleba</i>, over <i>Hakea pendens</i> (P2), <i>Phebalium tuberosum</i>, <i>Westringia cephalantha</i> on skeletal sandy soils. (STAM, VSAM) 6. <i>Callitris glaucophylla</i> woodlands on massive greenstone, species poor. (CWRO) 	<ol style="list-style-type: none"> 1. <i>Acacia dissona</i> var. <i>indoloria</i> (P3) 2. <i>Eremophila caerulea</i> subsp. <i>merrallii</i> (P4) 3. <i>Hakea pendens</i> (P3) 4. <i>Philotheca coateana</i> (P3) 5. <i>Stenanthemum poecilum</i> (P3) 6. <i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)
Botanica Consulting, 2010	<p>Eleven vegetation communities identified within the Mt Caudan survey area:</p> <ol style="list-style-type: none"> 1. Mixed <i>Eucalyptus</i> Woodland; 2. <i>Eucalyptus salmonophloia</i> Woodland; 3. <i>Eucalyptus salubris</i> Woodland; 4. Mallee woodland/<i>Allocasuarina</i> shrubland on Laterite Ridge; 5. <i>Allocasuarina</i> Shrubland; 6. Mallee Heath; 7. Open Mallee Woodland; 8. <i>Allocasuarina</i> thicket; 9. <i>Acacia</i> sp. narrow phyllode and <i>Melaleuca eleuterostachya</i> Shrubland; 10. Burnt Mallee/ <i>Allocasuarina</i> Shrubland; and 11. <i>Eucalyptus transcontinentalis</i> Woodland. 	<ol style="list-style-type: none"> 1. <i>Acacia concolorans</i> (P2) 2. <i>Baeckea grandibracteata</i> subsp. Parker Range (P3) 3. <i>Banksia shanklandiorum</i> (P4) 4. <i>Chamelaucium</i> sp. Parker Range (B.H. Smith 1255) (P1) 5. <i>Cryptandra crispula</i> (P3) 6. <i>Hakea pendens</i> (P3) 7. <i>Isopogon robustus</i> (T) 8. <i>Lepidosperma</i> sp. Mt Caudan (N. Gibson & M. Lyons 2081) (P1) 9. <i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094) (P1)
RPS, 2012	<p>Three broad vegetation types affiliated with three landforms occurring within the project area:</p> <ol style="list-style-type: none"> 1. flat plains consisting of sandy soils; 2. red loamy clay plains and gentle slopes; and 3. lower slopes with red clays. 	<ol style="list-style-type: none"> 1. <i>Euryomyrtus</i> sp. Parker Range (N. Gibson & M. Lyons 2269) (P1)
MWH, 2014	<p>Eleven vegetation communities were recorded across the Survey Area:</p> <ol style="list-style-type: none"> 1. Mid Open Mallee Woodland to Scattered Mallees of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> (+/- scattered 	<ol style="list-style-type: none"> 1. <i>Euryomyrtus</i> sp. Parker Range (N. Gibson & M. Lyons 2269) (P1) 2. <i>Eutaxia lasiocalyx</i> (P2)

Author & Year	Vegetation/Landforms	Flora of Conservation Significance
	<p><i>E. ? eremophila</i>) over a Mid to Tall Open Shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>prinsepiana</i>, <i>Santalum acuminatum</i> and <i>Acacia assimilis</i> subsp. <i>assimilis</i> over a Mid to Low Open Shrubland of <i>Isopogon gardneri</i> and <i>Melaleuca cordata</i> (+/<i>Grevillea acacioides</i>, <i>Thryptomene kochii</i> and <i>Stenanthemum stipulosum</i>) occasionally over a sparse sedgeland of <i>Lepidosperma sanguinolentum</i> on low hills and minor laterite ridges</p> <ol style="list-style-type: none"> 2. Rehabilitated areas consisting of a Tall Shrubland to Open Shrubland of <i>Hakea francisiana</i>, <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> and <i>Allocasuarina campestris</i> over a Mid Sparse Shrubland of <i>Isopogon gardneri</i> and <i>Thryptomene kochii</i> over a Low Sparse Shrubland of <i>Westringia cephalantha</i> var. <i>cephalantha</i> and <i>Stenanthemum stipulosum</i> on low rocky hills 3. Open Woodland of <i>Eucalyptus? longicornis</i> over a Mid to Tall Sparse Shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> with Scattered <i>Santalum acuminatum</i> over a Low Open Shrubland of <i>Daviesia argillacea</i>, <i>Acacia hemiteles</i> and <i>Exocarpos aphyllus</i> over isolated tussocks of <i>Austrostipa pycnostachya</i> on sandy loam flats 4. Low to Mid Open Woodland to Woodland of <i>Eucalyptus? eremophila</i> over a Mid Sparse Shrubland to Shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> over a Mid to Low Shrubland to Sparse Shrubland of <i>Acacia merrallii</i>, <i>Dodonaea stenozyga</i> and <i>Daviesia argillacea</i> on loam flats and gentle slopes, many of which are in recovery from recent fire 5. Open Mallee Woodland of <i>Eucalyptus? eremophila</i> over a Mid Open shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>, <i>Daviesia argillacea</i> and <i>Acacia merrallii</i> over a Low Shrubland of <i>Acacia erinacea</i> and <i>Dodonaea stenozyga</i> in broad drainage lines 6. Mid to Low Open Shrubland of <i>Acacia merrallii</i> and <i>Daviesia argillacea</i> over a Low Open Shrubland of <i>Exocarpos aphyllus</i>, <i>Eutaxia lasiocalyx</i> and <i>Sclerolaena diacantha</i> over a Sparse Forbland of <i>Angianthus tomentosus</i> and <i>Asteridea athrixioides</i> on gritty loam flats 7. Open Woodland of <i>Eucalyptus urna</i> over a Mid Mallee Woodland of <i>Eucalyptus sheathiana</i> over a Mid Open Shrubland of <i>Daviesia argillacea</i> and <i>Acacia hemiteles</i> over a Sparse Low Shrubland of <i>Acacia merrallii</i> on low hills 8. Mid Mallee Woodland of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> over a Mid Sparse Shrubland of <i>Acacia steedmanii</i>, <i>Callitris? canescens</i>, and <i>Melaleuca hamata</i> over a Low Sparse Shrubland of <i>Westringia cephalantha</i> var. <i>cephalantha</i> and <i>Gastrolobium parviflorum</i> on gently sloping white sand plain 9. Mid Open Shrubland of <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>Isopogon gardneri</i> and <i>Melaleuca cordata</i> over a Low Sparse Shrubland of mixed species including <i>Callitris? canescens</i> and <i>Gastrolobium crassifolium</i> on sandy clay sloping plains 10. Scattered mallees of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> and <i>Eucalyptus? eremophila</i> over a Mid Sparse Shrubland of <i>Melaleuca hamata</i> and <i>Acacia acoma</i> over a Low Mixed Shrubland mostly dominated by <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>, <i>Acacia acanthaster</i> and 	<ol style="list-style-type: none"> 3. <i>Hemigenia</i> sp. Newdegate (E. Bishop 75) (P1) 4. <i>Calamphoreus inflatus</i> (P4)

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	<p><i>Stenanthemum stipulosum</i> over a Sparse Sedgeland of <i>Lepidosperma sanguinolentum</i> on a low rocky hills</p> <p>11. Mid Open Mallee Woodland of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> over a Mid Open Shrubland of <i>Acacia steedmanii</i> and <i>Acacia assimilis</i> subsp. <i>assimilis</i> over a Low Sparse Shrubland of <i>Grevillea paradoxa</i> on gravelly low hills</p>	
Botanica (2016a)	<p>Five vegetation types were identified within the survey area;</p> <ol style="list-style-type: none"> 1. Low Woodland of mixed Eucalypts over open scrub of <i>Exocarpos aphyllus</i>/ <i>Melaleuca pauperiflora</i>/ <i>Santalum acuminatum</i> and open dwarf scrub of <i>Acacia deficiens</i>/ <i>Scaevola spinescens</i> on clay-loam plain/ low slope 2. Low Woodland of <i>Eucalyptus salubris</i> over scrub of <i>Melaleuca pauperiflora</i>/ <i>Santalum acuminatum</i> over open dwarf scrub of <i>Scaevola spinescens</i> on clay-loam plain/ low slope 3. Tree Mallee of <i>Eucalyptus gracilis</i> over heath of <i>Beyeria brevifolia</i> and open dwarf scrub of <i>Acacia erinacea</i>/ <i>A. merallii</i> on clay-loam plain/ low slope 4. Low Woodland of <i>Eucalyptus vittadia</i> over open low scrub of <i>Beyeria brevifolia</i>/ <i>Phebalium</i> spp. and open low sedge of <i>Lepidosperma sanguinolentum</i> on rocky hillslope 5. Open Tree Mallee of <i>Eucalyptus loxophleba</i> subsp. <i>lissophella</i> over scrub of <i>Melaleuca pauperiflora</i> and open dwarf scrub of <i>Westringia cephalantha</i> on rocky hillslope 	None
Botanica (2016b)	<p>Five vegetation types were identified within the survey area:</p> <ol style="list-style-type: none"> 1. Regrowth Open Low Woodland of <i>Eucalyptus salmonophloia</i>/ <i>E. salubris</i>/ <i>E. urna</i> over scrub of <i>Melaleuca pauperiflora</i> subsp. <i>pauperiflora</i> and Mixed Low Scrub on clay-loam plain 2. Low forest of <i>Eucalyptus longicornis</i> over scrub of <i>Melaleuca pauperiflora</i> subsp. <i>pauperiflora</i> and Mixed Low Scrub on rocky plain/ basalt rise 3. Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. tenera</i> over heath of <i>Allocasuarina campestris</i> and Mixed Low Scrub on laterite rise 4. Very Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. cylindriflora</i> over heath of <i>Allocasuarina acutivalvis</i>/ <i>A. corniculata</i>/ <i>Acacia yorkrakinensis</i> and Mixed Low Heath on rocky plain/ laterite rise 5. Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. tenera</i> over low scrub of <i>Acacia yorkrakinensis</i>/ <i>Melaleuca hamata</i> and Mixed Low Heath on rocky plain/ laterite rise 	<ol style="list-style-type: none"> 1. <i>Euryomyrtus</i> sp. Parker Range (N. Gibson & M. Lyons 2269) (P1) 2. <i>Eutaxia ?lasiocalyx</i> (P2) 3. <i>Hemigenia</i> sp. Newdegate (E. Bishop 75) (P1) 4. <i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)
PEK Enviro (2016)	<p>Seventeen vegetation types were identified within the survey area:</p> <ol style="list-style-type: none"> 1. <i>Acacia lasiocalyx</i> Tall Open Shrubland 2. <i>Allocasuarina huegeliana</i> Low Open Forest 3. <i>Borya constricta</i> and <i>Actinobole uliginosum</i> Low Open Forbland 4. <i>Eucalyptus burracoppinensis</i> Low Open Mallee shrubland with <i>Grevillea excelsior</i> Tall Open Heathland 5. Mixed Shrubland 6. <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> Mid Heathland 7. <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> and <i>E. calycogona</i> subsp. <i>calycogona</i> Low Tree Mallee 8. Mixed <i>Acacia</i> and <i>Melaleuca</i> Low Shrubland 	<ol style="list-style-type: none"> 1. <i>Acacia asepala</i> (P2) 2. <i>Acacia dissona</i> var. <i>indoloria</i> (P3) 3. <i>Banksia xylothemelia</i> (P3) 4. <i>Bossiaea celata</i> (P3) 5. <i>Caesia viscida</i> (P2) 6. <i>Chorizema circinale</i> (P3) 7. <i>Cryptandra crispula</i> (P3) 8. <i>Hibbertia glabriuscula</i> (P3) <p><i>Microcorys</i> sp. Forrestania (V. English, 2004) (P4)</p>

Author & Year	Vegetation/Landforms	Flora of Conservation Significance
	9. <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> low Tree Mallee 10. <i>Acacia lasiocalyx</i> Tall Open Shrubland with <i>Eucalyptus burracoppinensis</i> Low Open Mallee Shrubland 11. <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> mid sparse heathland with <i>Eucalyptus burracoppinensis</i> Low Sparse Mallee Shrubland 12. <i>Eucalyptus olivina</i> Low Mallee Shrubland 13. <i>Eucalyptus longicornis</i> Mid Woodland 14. <i>Eucalyptus salmonophloia</i> Mid Woodland 15. <i>Eucalyptus ?transcontinentalis</i> Low Open Forest with <i>Eucalyptus</i> sp. regrowth Mid Mallee Shrubland 16. <i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i> Low Woodland 17. <i>Eucalyptus horistes</i> Low Open Mallee Shrubland	
Botanica (2017)	N/A	1. <i>Acacia asepala</i> (P2) 2. <i>Banksia xylothemelia</i> (P3) 3. <i>Microcorys</i> sp. Forrestania (V. English 2004) (P4) 4. <i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3)

The results of the literature review, combined search of the DBCA's Flora of Conservation Significance databases (DBCA, 2018b), NatureMap search and DotEE protected matters search identified eleven Priority Flora taxa known to occur within the survey area. An additional five Threatened Flora taxa and fifty-nine Priority Flora taxa were listed as occurring within a 20 km radius of the survey area. These taxa were assessed and ranked for their likelihood of occurrence within the survey area (Table 4-2). The rankings and criteria used were:

- **Unlikely:** Area is outside of the currently documented distribution for the species/no suitable habitat (type, quality and extent) was identified as being present during the field/desktop assessment.
- **Possible:** Area is within the known distribution of the species in question and habitat of at least marginal quality was identified as being present during the field/desktop assessment, supported in some cases by recent records being documented from within or near the area.
- **Known to Occur:** The species in question was positively identified as being present during field surveys/ DBCA listed record.

Table 4-2: Likelihood of occurrence for Flora of Conservation Significance within the survey area

Taxon	EPBC Act	WC Act	DBCA Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Paragoodia crenulata</i>	CE	VU		No description available.	Possible
<i>Acacia lobulata</i>	EN	EN		Erect, open, often spindly shrub, 1-2 m high. Fl. yellow, Jul. Gritty loam or sand. Low granitic breakaways.	Unlikely
<i>Acacia lanuginophylla</i>	EN	VU		Dense shrub, 0.5-1.2 m high. Fl. yellow, Jul to Oct. White/grey sand, clayey sand, gravelly soils. Flats, along drainage lines.	Unlikely

Taxon	EPBC Act	WC Act	DBCAs Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Roycea pycnophylloides</i>	EN	VU		Perennial, herb, forming densely branched, silvery mats to 1 m wide. Fl. Sep. Sandy soils, clay. Saline flats.	Possible
<i>Banksia sphaerocarpa</i> var. <i>dolichostyla</i>	VU	VU		Lignotuberous shrub, 1-3 m high. Fl. yellow-orange, Mar to May. Lateritic gravel, grey sand.	Unlikely
<i>Acacia dorsenna</i>			P1	Dense, domed shrub, 1-1.6 m high, to 3 m wide. Fl. yellow, Aug to Sep. Rocky sandy loam or clay loam. Low rocky hills.	Unlikely
<i>Bossiaea saxosa</i>			P1	Erect, intricately-branched shrub, to 1.5 m high. Fl. yellow-cream, Sep to Oct. Stony, red soil. Woodlands.	Possible
<i>Chamelaucium</i> sp. Parker Range (B.H. Smith 1255)			P1	No description available.	Possible
<i>Drummondita wilsonii</i>			P1	Erect shrub, 0.4-1 m high. Fl. red & green & pink, Jun to Aug. Sand with gravel & pebbles.	Possible
<i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i>			P1	Spreading mallee, to 3 m high, bark 'minni-ritchi'. Fl. yellow, Sep to Nov. Rocky rises.	Unlikely
<i>Grevillea lissopleura</i>			P1	Erect shrub, 0.5-1.2 m high. Fl. Aug. Stony loam on banded ironstone. On ridges.	Unlikely
<i>Grevillea phillipsiana</i>			P1	Prickly shrub, 0.8-1.5 m high. Fl. red/red & orange, Jul to Sep. Red sand, stony loam. Granite hills.	Unlikely
<i>Hemigenia obovata</i>			P1	Erect shrub, to 0.5 m high. Fl. blue-purple, Oct to Nov. White or black wet sand. Flats.	Unlikely
<i>Hemigenia</i> sp. Newdegate (E. Bishop 75)			P1	Spindly, erect to spreading shrub, 0.2-0.45 m high, to 0.5 m wide. Fl. blue/purple, Sep to Oct. Clay loam. Disturbed sites.	Possible
<i>Lepidosperma</i> sp. Mt Caudan (N. Gibson & M. Lyons 2081)			P1	No description available.	Unlikely
<i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094)			P1	No description available	Unlikely
<i>Leucopogon validus</i>			P1	Robust, lignotuberous shrub, to about 1.2 m high. Dry, brown, rocky sandy loam, brown-orange sandy clay, gravel, ironstone, sandstone. Low ranges, on and around exposed breakaways.	Unlikely
<i>Melaleuca grieviana</i>			P1	Compact shrub, to 0.75 m high. Fl. yellow, Jul. Well-drained orange-brown loam, brown clay. Plains, gentle slopes, edge of crop paddocks.	Possible
<i>Microcorys</i> sp. Mt Holland (D. Angus DA 2397)			P1	No description available	Possible

Taxon	EPBC Act	WC Act	DBCAs Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Micromyrtus papillosa</i>			P1	Erect or low, spreading shrub, 0.4-1.2 m high. Fl. white, Apr or Aug to Oct. Sandy or clay soils, ironstone, granite. Rocky sites, outcrops, on hills from base to summit.	Unlikely
<i>Rinzia medifila</i>			P1	No description available	Possible
<i>Acacia asepalata</i>			P2	Diffuse, much-branched shrub, 0.5-1.5 m high. Fl. yellow, Aug. Red-brown sandy loam. Undulating plains, along drainage lines.	Known to Occur
<i>Acacia concolorans</i>			P2	Intricate, sprawling or compact, pungent shrub, 0.1-0.5 m high. Fl. yellow, Jul to Aug. Red/brown loam, clay. Low lateritic hills, flats	Unlikely
<i>Acacia kerryana</i>			P2	Low, spreading, domed shrub, 0.3-1 m high. Fl. yellow, Oct to Dec or Jan to Feb. Granitic loamy sand, stony clayey loam or clayey sand. Low stony ridges, undulating plains.	Possible
<i>Caesia viscida</i>			P2	Rhizomatous and tuberous, tufted perennial, herb, to 0.3 m high. Fl. white, Nov. Aeolian sand. Low dunes.	Known to Occur
<i>Conospermum sigmoideum</i>			P2	Erect shrub, 0.2-0.5 m high. Fl. blue, Aug to Sep. Yellow sand.	Possible
<i>Eutaxia lasiocalyx</i>			P2	Low, spreading, multi-stemmed shrub, to 0.15 m high. Fl. yellow, Nov. Red sandy loam, laterite and quartz gravel. Gentle lower slopes.	Possible
<i>Lepidium merrallii</i>			P2	Erect to spreading annual (possibly ephemeral), herb, 0.03-0.15 m high. Clay loam.	Possible
<i>Orianthera exilis</i>			P2	No description available.	Possible
<i>Philotheca apiculata</i>			P2	Erect shrub, 0.5-1.5 m high. Fl. white-pink, Aug to Nov. Stony clay loam. Rocky outcrops, hillsides.	Unlikely
<i>Verticordia multiflora</i> subsp. <i>solox</i>			P2	Erect to spreading shrub, 0.2-0.6 m high. Fl. yellow, Oct to Dec or Jan. Yellow sand over gravel, sand over granite.	Known to Occur
<i>Acacia crenulata</i>			P3	Bushy shrub or tree, 0.7-3 m high. Fl. yellow. Clay, sandy clay, yellow sand. Rocky rises, granite outcrops, breakaways.	Unlikely
<i>Acacia cylindrica</i>			P3	Spreading shrub, 1.5-3(-4) m high. Fl. yellow, Aug to Oct. Yellow/brown sand, gravelly soils. Undulating plains, flats.	Possible
<i>Acacia dissona</i> var. <i>indoloria</i>			P3	Domed or rounded, dense, pungent shrub, 0.5-2 m high. Fl. yellow, Aug to Sep. Sand, sandy loam. Undulating plains.	Possible
<i>Acacia formidabilis</i>			P3	Diffuse, pungent shrub, 0.2-0.6 m high. Fl. yellow, Aug to Sep. Yellow or red/brown sand. Undulating plains, hillsides.	Possible
<i>Acacia inophloia</i>			P3	Shrub or tree, 1-4 m high, bark fibrous & stringy. Fl. yellow, Aug to Oct. Yellow sand, gravelly granitic soils.	Possible

Taxon	EPBC Act	WC Act	DBCA Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Angianthus micropodioides</i>			P3	Erect or decumbent annual, herb, 0.03-0.15 m high. Fl. yellow-white, Nov to Dec or Jan to Feb. Saline sandy soils. River edges, saline depressions, claypans.	Possible
<i>Baekkea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)			P3	No description available	Possible
<i>Banksia lullfitzii</i>			P3	Lignotuberous shrub, 0.8-2 m high. Fl. yellow-orange/orange-brown, Mar to May. Yellow sand. Sandplains.	Possible
<i>Banksia xylothemelia</i>			P3	Often sprawling, lignotuberous shrub, to 1 m high, sometimes suckering. Fl. yellow, Sep to Oct. Sandy loam, usually over laterite. Sandplains.	Possible
<i>Bossiaea celata</i>			P3	Compact, intricately-branched shrub, to 0.8 m high. Fl. yellow-red-orange, Sep to Oct. Deep sand. Open mallee.	Known to Occur
<i>Chorizema circinale</i>			P3	Prostrate, scrambling, wiry shrub, to 0.4 m high. Fl. yellow & orange & red, Sep to Dec. Yellow sand, sandy clay with gravel. Flats, margin of gravel pit.	Known to Occur
<i>Cryptandra crispula</i>			P3	Non-spinescent shrub, 0.25-0.9 m high. Brown sandy clay, yellow loamy sand, red soil, pebbles. Dune ridges, hills, near salt lakes.	Known to Occur
<i>Eremophila veronica</i>			P3	Spreading, erect shrub, 0.5-1 m high. Fl. purple, Apr to May. Stony clay, clay loam. Lateritic breakaways.	Unlikely
<i>Eucalyptus brockwayi</i>			P3	Tree, 5-20 m high, bark smooth. Fl. white-cream, Mar to Jun. Gravelly sandy loam. Low rocky hills & slopes.	Unlikely
<i>Eucalyptus exigua</i>			P3	(Mallee), 2-5 m high, bark smooth. Fl. white-cream, Mar. Sandy loam, white sand. Sandplains.	Possible
<i>Eutaxia rubricarina</i>			P3	Straggling shrub, to 0.5 m high. Fl. Orange & yellow & brown, Aug or Oct. Gravelly sand, grey to pinkish-white sandy clay, red loam. Flats, slopes, valley floors, road verges.	Possible
<i>Grevillea fulgens</i>			P3	Spreading to straggling, non-lignotuberous shrub, 0.5-2 m high. Fl. red/pink-red, May to Oct or Dec. Gravel over laterite. Hillsides.	Possible
<i>Hakea pendens</i>			P3	Shrub, 2-3 m high, 2.5-3.1 m wide. Fl. pink-white, Sep. Stony loam. Ironstone ridges.	Unlikely
<i>Hibbertia lepidocalyx</i> subsp. <i>tuberculata</i>			P3	Shrub. Yellow-orange loam, ironstone gravel.	Possible
<i>Hibbertia pachyphylla</i>			P3	Shrub, to 0.5 m high. Fl. yellow, Sep to Nov. White to yellow sand, brown sandy gravel, gravelly loam, laterite, granite, quartz. Undulating plains, low rises, valley floors.	Unlikely

Taxon	EPBC Act	WC Act	DBCA Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Lasiopetalum fitzgibbonii</i>			P3	Erect, spreading shrub, 0.3-1.5 m high. Fl. blue-purple-pink, Sep to Nov. Sand, clay loam, lateritic soils. Undulating plains, hills.	Possible
<i>Melaleuca ochroma</i>			P3	No description available.	Possible
<i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583)			P3	No description available.	Known to Occur
<i>Notisia intonsa</i>			P3	Prostrate to ascending annual, herb, 0.01-0.04 m high. Fl. yellow-brown, Sep to Oct. Red/brown clay, stony saline loam.	Possible
<i>Phebalium drummondii</i>			P3	Upright shrub, 0.6-1.5 m high. Fl. yellow, Jul to Sep. Gravelly sandy or clayey soils. Flats, roadsides.	Possible
<i>Philotheca coateana</i>			P3	Shrub, 0.3-0.5 m high, branchlets glabrous; leaf blades 3-4 mm long; flowers terminal, solitary; petals 7-9 mm long. Fl. white & pink, Aug to Sep. Red sand.	Unlikely
<i>Phlegmatospermum eremaeum</i>			P3	Prostrate to spreading annual, herb, 0.02-0.1(-0.2) m high. Fl. white-cream, Jun or Aug to Oct. Stony loam.	Possible
<i>Pityrodia scabra</i> subsp. <i>dendrotricha</i>			P3	Shrubs. Stems, cross section more or less circular. Peltate scales absent. Leaves 5-15 mm long, 2-5 mm wide, opposite, entire, with dendritic hairs, bullate, not viscid. Margins entire. Bracteoles absent. Bracts present. 2.5-4.2. mm long Pedicel present, 1-3 mm long, with glandular, dendritic hairs, peltate scales hairs present. Calyx with five lobes, 2.5-3 mm long, not accrescent, sparsely hairy, with glandular, dendritic hairs, not bullate. Corolla white or cream, 8-10 mm long, Dots or stripes in throat present, with dendritic hairs, not viscid, with four stamens, style 6-7 mm long, filament 1-2 mm long, anthers 0.5-0.7 mm long. Appendage absent. Flowering time March, April, May, June, July, August, September or October.	Possible
<i>Prostanthera nanophylla</i>			P3	Shrub, 0.1-1 m high. Fl. blue-purple-white, Aug to Nov. Yellow sand over laterite, rocky loam. Sandplains.	Known to Occur
<i>Rinzia triplex</i>			P3	Straggly, erect shrub, to 1.5 m high. Fl. pink, Jun. Yellow to orange sandy loam with laterite gravel. Gently undulating sandplains, low ridges, road verges.	Possible
<i>Seringia adenogyna</i>			P3	No description available.	Possible
<i>Stenanthemum poicilum</i>			P3	Erect or decumbent shrub, 0.15-0.5 m high. Fl. white, May to Jun or Sep to Nov. Red clay or sandy clay, loam.	Possible
<i>Teucrium</i> sp. dwarf (R. Davis 8813)			P3	Compact, dwarf shrub, 0.1 m high, to 0.1 m wide. Fl. white, Apr. Hills, road verges.	Possible

Taxon	EPBC Act	WC Act	DBCA Priority Rating	Description (WAHERB, 2018)	Likelihood of occurrence
<i>Verticordia mitodes</i>			P3	Spreading shrub, 0.15-0.7 m high. Fl. pink-purple, Oct to Dec or Jan. Yellow sand. Undulating plains.	Possible
<i>Verticordia stenopetala</i>			P3	Shrub, 0.2-0.6(-1.3) m high. Fl. pink/pink-purple-red, Oct to Dec or Jan. Yellow sand, sometimes with gravel. Undulating plains.	Likely
<i>Banksia shanklandiorum</i>			P4	Upright, non-lignotuberous shrub, 0.4-2.5 m high, to 3 m wide. Fl. Jun to Aug. White/yellow sand with lateritic gravel.	Possible
<i>Calamphoreus inflatus</i>			P4	Erect, spreading shrub, 0.4-1.6 m high, to 2 m wide. Fl. blue-purple/green, Oct to Dec or Feb to Mar. Clay loam with ironstone gravel. Flats, disturbed sites.	Possible
<i>Eremophila caerulea</i> subsp. <i>merrallii</i>			P4	Spreading or sprawling shrub, to 0.35 m high, to 0.8 m wide. Fl. blue-purple, Oct to Dec. Sand, clay or loam. Undulating plains.	Known to Occur
<i>Eucalyptus pterocarpa</i>			P4	Tree, to 15 m high, bark smooth throughout, becoming ribbony, light grey over salmon cream. Red-brown sandy loam, yellow-brown silty loam. Creek edges, rocky slopes.	Unlikely
<i>Grevillea neodissecta</i>			P4	No description available	Possible
<i>Grevillea prostrata</i>			P4	Loose, prostrate shrub, 0.04-0.1 m high, 0.8-1.2 m wide. Fl. cream-white/pink-red, Aug to Dec or Jan. White, grey or yellow sand, gravel. Sandplains.	Known to Occur
<i>Microcorys</i> sp. <i>Forrestania</i> (V. English 2004)			P4	Prostrate or erect shrub, 0.35-0.4 m high. Fl. white/purple, Jan or Apr. Yellow sandy clay or red-brown clay. Open woodland or cleared areas.	Known to Occur
<i>Myriophyllum petraeum</i>			P4	Aquatic annual, herb, stems 0.15-0.3 m long. Fl. white, Aug to Dec. Strictly confined to ephemeral rock pools on granite outcrops.	Unlikely
<i>Stenanthemum bremerense</i>			P4	Erect or low and spreading shrub, (0.2-)0.3-0.6(-1.4) m high. Orange-brown sandy loam, orange-red gravelly loam, skeletal red loam, laterite, ironstone. Top or sides of outcrops and breakaways.	Possible

4.2 Field Assessment

4.2.1 Vegetation Associations

Four vegetation associations were identified within the survey area. These vegetation associations were located within three different landform types and comprised three major vegetation groups. Vegetation was represented by a total of 34 Families, 79 Genera and 179 Taxa (including four annual taxa) (Appendix 2). A map showing the vegetation associations present in the survey area is located in Figure 4-1 and a summary of vegetation associations is presented in Table 4-3.

Table 4-3: Summary of vegetation associations within the Parker Dome Exploration Project survey area

Landform	NVIS	Vegetation Code	Vegetation Association	Area (ha)	Area (%)
Clay-Loam Plain	Eucalyptus Woodland (MVG 5)	CLP-EW1	Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain	3411	48
Sand-Loam Plain	Mallee Woodland and Shrubland (MVG 14)	SLP-MWS1	Mid Mallee Shrubland of <i>Eucalyptus platycorys</i> / <i>E. pileata</i> on sand-loam plain	1971	28
Sandplain	Heathlands (MVG 18)	SP-H1	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain	1364	19
Sandplain	Heathlands (MVG 18)	SP-H2	Mid Heathland of <i>Acacia lasiocalyx</i> / <i>Allocasuarina campestris</i> on sandplain	326	5
TOTAL				7082*	100

*includes 10ha of bare salt lake

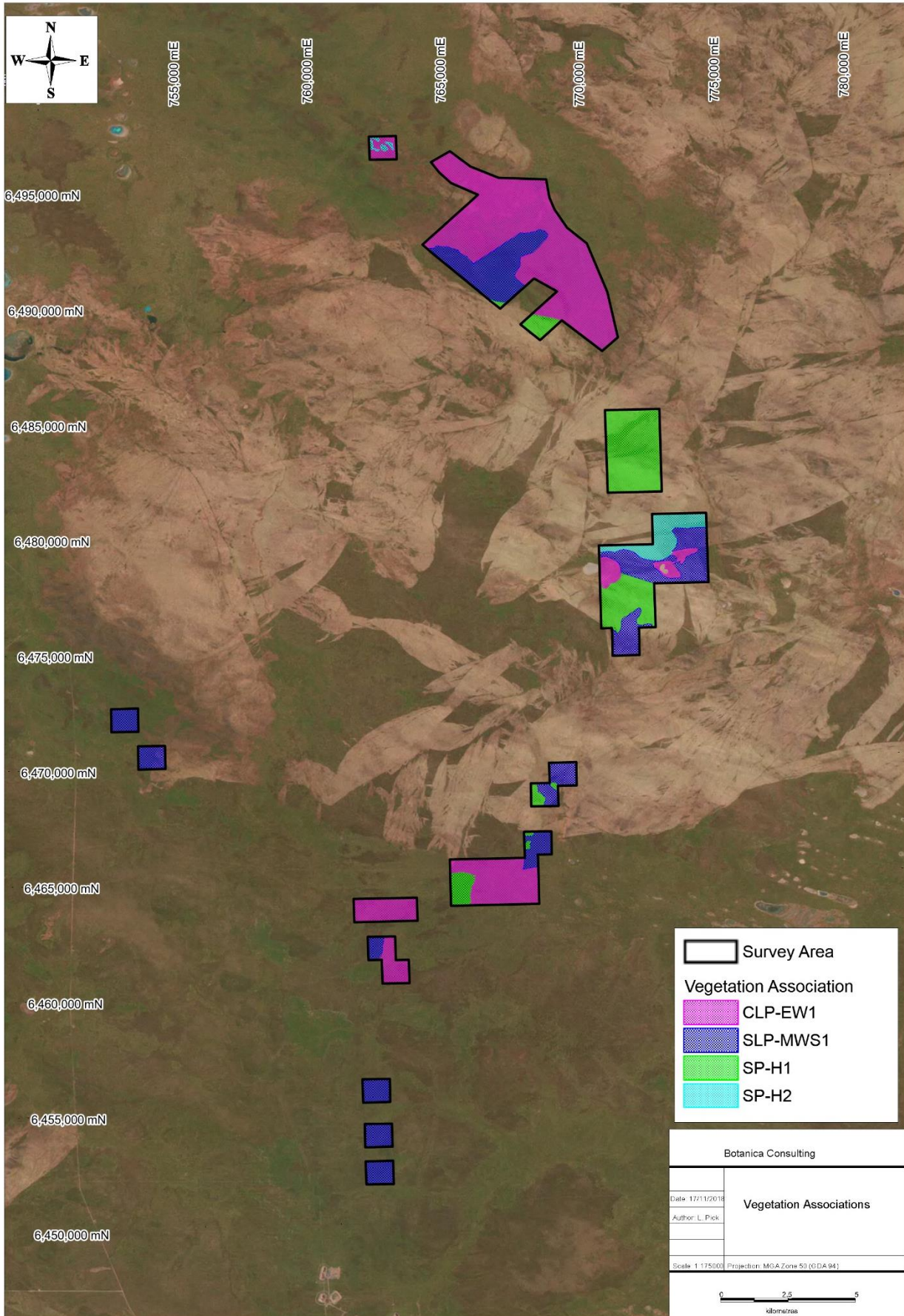


Figure 4-1: Vegetation associations within the survey area

Clay-Loam Plain: Eucalyptus Woodlands

4.2.1.1 Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1)

The total flora recorded within this vegetation association was represented by a total of 26 Families, 40 Genera and 77 Taxa (Plate 1). Dominant taxa from the vegetation assemblage are shown in Table 4-4. According to the NVIS, this community is best represented by the MVG5- Eucalypt Woodlands (DotEE, 2017).

Table 4-4: Vegetation assemblage for Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain

Life Form/Height Class	Canopy Cover	Dominant Taxa
Tree 10-30m	10-30%	<i>Eucalyptus salmonophloia</i> <i>Eucalyptus salubris</i> <i>Eucalyptus urna</i>
Shrub 1-2m	30-70%	<i>Acacia neurophylla</i> subsp. <i>neurophylla</i> <i>Dodonaea stenozyga</i> <i>Melaleuca hamata</i> <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> <i>Melaleuca sparsiflora</i> <i>Senna artemisioides</i> subsp. <i>filifolia</i>
Shrub <1m	10-30%	<i>Acacia hemiteles</i> <i>Acacia intricata</i> <i>Microcybe multiflora</i> <i>Olearia muelleri</i> <i>Westringia cephalantha</i>



Plate 1: Mid open woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain

Sand-Loam Plain: Mallee Woodlands and Shrublands

4.2.1.2 Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1)

The total flora recorded within this vegetation type was represented by a total of 23 Families, 53 Genera and 95 Taxa (Plate 2). Dominant taxa from the vegetation assemblage are shown in Table 4-5. According to the NVIS, this community is best represented by the MVG14- Mallee Woodlands and Shrublands (DotEE, 2017).

Table 4-5: Vegetation assemblage for Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain

Life Form/Height Class	Canopy Cover	Dominant Taxa
Shrub Mallee <3m	30-70%	<i>Eucalyptus platycorys</i> <i>Eucalyptus pileata</i> <i>Eucalyptus transcontinentalis</i>
Shrub 1-2m	30-70%	<i>Grevillea oncogyne</i> <i>Melaleuca hamata</i>
Shrub <1m	30-70%	<i>Acacia deficiens</i> <i>Drummondita hassellii</i> <i>Hibbertia eatoniae</i> <i>Thryptomene kochii</i>
Hummock Grass <1m	10-30%	<i>Triodia rigidissima</i> <i>Triodia scariosa</i>



Plate 2: Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain

Sandplain: Heathlands

4.2.1.3 Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1)

The total flora recorded within this vegetation type was represented by a total of 29 Families, 56 Genera and 94 Taxa (Plate 3). Dominant taxa from the vegetation assemblage are shown in Table 4-6. According to the NVIS, this community is best represented by the MVG18- Heathlands (DotEE, 2017).

Table 4-6: Vegetation assemblage for Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain

Life Form/Height Class	Canopy Cover	Dominant Taxa
Shrub Mallee <3m	5-10%	<i>Eucalyptus platycorys</i>
Shrub 1-2m	30-70%	<i>Allocasuarina acutivalvis</i> <i>Allocasuarina corniculata</i> <i>Callitris preissii</i> <i>Melaleuca hamata</i>
Shrub <1m	30-70%	<i>Dodonaea bursariifolia</i> <i>Drummondita hassellii</i>
Sedge <1m	10-30%	<i>Gahnia ancistrophylla</i> <i>Lepidosperma sanguinolentum</i>
Hummock Grass <1m	10-30%	<i>Triodia rigidissima</i> <i>Triodia scariosa</i>



Plate 3: Mid heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain

4.2.1.4 Mid Heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain (SP-H2)

The total flora recorded within this vegetation type was represented by a total of 28 Families, 57 Genera and 101 Taxa (Plate 4). Dominant taxa from the vegetation assemblage are shown in Table 4-7. According to the NVIS, this community is best represented by the MVG18- Heathlands (DotEE, 2017).

Table 4-7: Vegetation assemblage for Mid Heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain

Life Form/Height Class	Canopy Cover	Dominant Taxa
Shrub >2m	10-30%	<i>Acacia lasiocalyx</i>
Shrub 1-2m	30-70%	<i>Allocasuarina campestris</i>
Shrub <1m	30-70%	<i>Borya constricta</i> <i>Hibbertia rostellata</i>
Hummock Grass <1m	10-30%	<i>Triodia scariosa</i>



Plate 4: Mid heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain

4.2.2 Vegetation Condition

Based on the vegetation condition rating scale adapted from Keighery, 1994 and Trudgen, 1988 (Appendix 3), vegetation ranged from 'good' to 'very good' (Table 4-8). A map of the vegetation condition within the survey area is provided in Figure 4-2.

'Good' condition depicts that vegetation structure has been significantly altered by very obvious signs of multiple disturbances, however it retains its basic vegetation structure or has ability to regenerate it. Disturbance to vegetation structure may be caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.

'Very Good' condition depicts that vegetation structure has been altered by obvious signs of disturbance. Disturbance to vegetation structure may be caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and grazing.

Table 4-8: Vegetation Condition Rating for Vegetation associations of the Parker Dome Exploration Project survey area

Landform	NVIS	Vegetation Code	Vegetation Association	Vegetation Condition Rating
Clay-Loam Plain	Eucalyptus Woodland (MVG 5)	CLP-EW1	Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain	Good-Very Good
Sand-Loam Plain	Mallee Woodland and Shrubland (MVG 14)	SLP-MWS1	Mid Mallee Shrubland of <i>Eucalyptus platycorys</i> / <i>E. pileata</i> on sand-loam plain	Good-Very Good
Sandplain	Heathlands (MVG 18)	SP-H1	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain	Good-Very Good
Sandplain	Heathlands (MVG 18)	SP-H2	Mid Heathland of <i>Acacia lasiocalyx</i> / <i>Allocasuarina campestris</i> on sandplain	Very Good

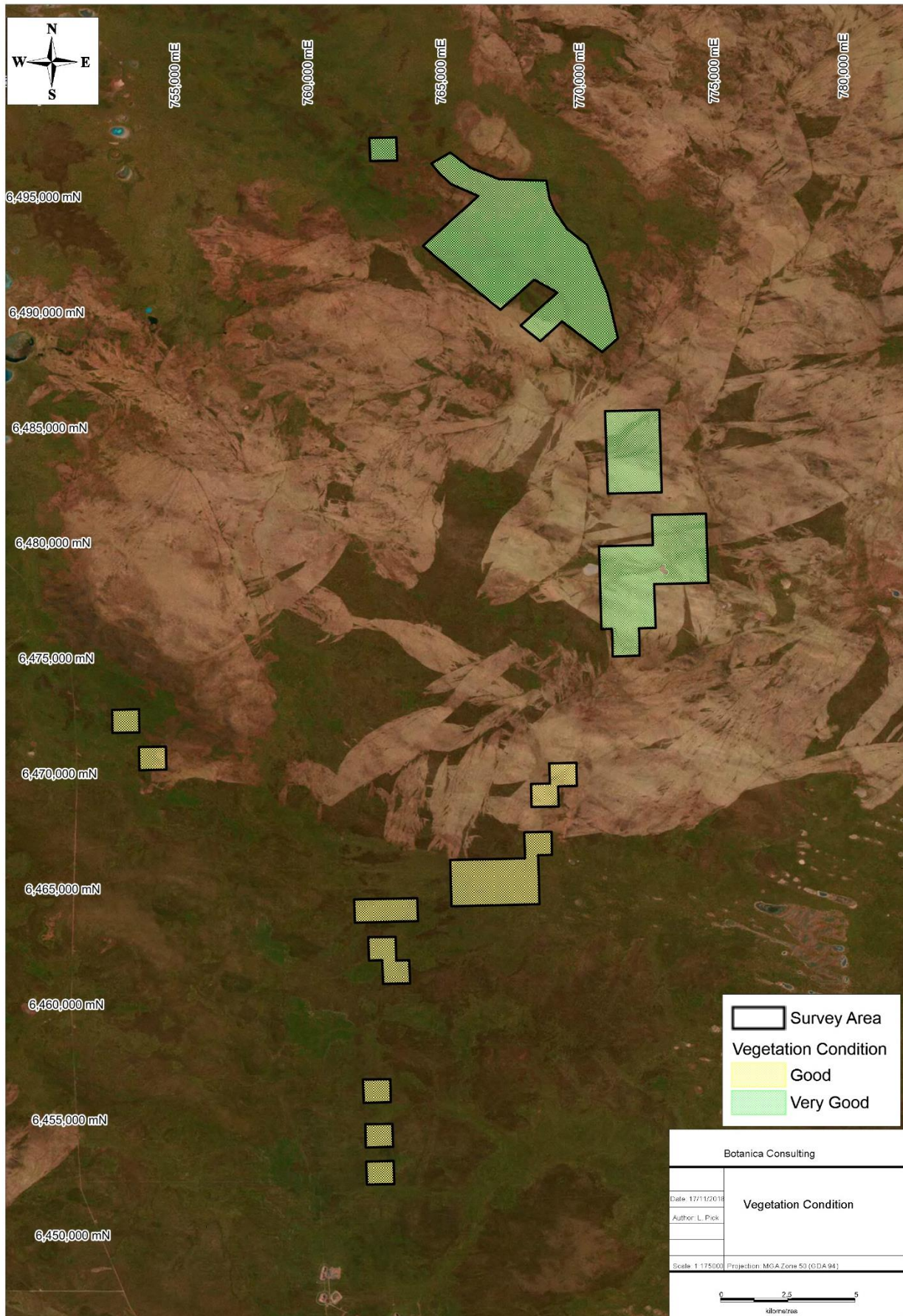


Figure 4-2: Vegetation Condition Rating of the Parker Dome Exploration Project survey area

4.2.3 Introduced Plant Species

No introduced species were identified within the survey area.

4.2.4 Floristic Composition of the Parker Dome Exploration Project Quadrats

This analysis was used to determine the similarities or differences in floristic composition between vegetation associations. Appendix 8 provides the dendrogram, two-way table and ordination graph generated from the PATN statistical analysis. A list of the 24 quadrats and their respective vegetation associations are provided in Table 4-9 below. The PATN analysis produced a stress value of 0.1926.

Table 4-9: Vegetation associations with corresponding quadrats

Landform	NVIS	Vegetation Code	Vegetation Association	Quadrats
Clay-Loam Plain	Eucalyptus Woodland (MVG 5)	CLP-EW1	Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain	Q1, Q2, Q11, Q14, Q19, Q21, Q22, Q24
Sand-Loam Plain	Mallee Woodland and Shrubland (MVG 14)	SLP-MWS1	Mid Mallee Shrubland of <i>Eucalyptus platycorys</i> / <i>E. pileata</i> on sand-loam plain	Q4, Q6, Q7, Q8, Q15, Q16, Q17, Q18, Q20, Q23
Sandplain	Heathlands (MVG 18)	SP-H1	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain	Q3, Q5, Q13
Sandplain	Heathlands (MVG 18)	SP-H2	Mid Heathland of <i>Acacia lasiocalyx</i> / <i>Allocasuarina campestris</i> on sandplain	Q9, Q10, Q12

Two 'supergroups' were identified in the PATN analysis:

1. Clay-Loam Plain-Eucalypt Woodland; and
2. Sandplain/ Sand-Loam Plain-Mallee Woodlands and Shrublands & Heathlands

Four species groups were identified in the analysis (species group A to D) as shown in the two-way table (Appendix 8).

The 'Clay-Loam Plain-Eucalypt Woodland' supergroup included one floristic group which included all the CLP-EW1 quadrats and one SLP-MWS1 quadrat (Q18). This floristic group was mainly characterised by species group D and had an average species richness of 12 taxa per quadrat (ranged from 8 to 17 taxa per quadrat).

The 'Sandplain/ Sand-Loam Plain- Mallee Woodlands and Shrublands & Heathlands' supergroup was divided into three floristic groups; the first floristic group (Group 2) included all three quadrats of SP-H1 and four of the nine SLP-MWS1 quadrats. This group was mainly characterised by species group A and B. Average species richness for this group was 20 taxa per quadrat (ranged from 18 to 23 taxa per quadrat).

The remaining SLP-MWS1 quadrats were grouped together (Group 3) and were mainly characterised by species group A and C, with an average species richness of 12 taxa per quadrat (ranged from 7 to 15 taxa per quadrat).

The fourth group included all three SP-H2 quadrats, which were mainly characterised by species group B and had an average species richness of 11 taxa per quadrat (range from 4 to 19 taxa per quadrat).

Based on the results of the PATN analysis, there was minimal heterogeneity in species composition across the survey area, with quadrats from different vegetation associations (excluding SP-H2) intermixed into floristic groups despite differences in dominant stratum taxa. However, two distinct supergroups were identified. The first supergroup comprised mostly of quadrats from the clay-loam plain (Eucalypt Woodlands) vegetation association and one sand-loam plain (Mallee Woodlands and Shrublands) quadrat. The second supergroup comprised a mix of quadrats from the sandplains (Heathlands) and sand-loam plain (Mallee Woodlands and Shrublands) vegetation associations.

Species Richness and Accumulation Estimates

The Chao 2 richness estimator provided an estimated species richness of 188 species in 50 sample sites (quadrats). Species richness recorded for the 36 quadrats surveyed was 167 species (including annuals) which indicates survey intensity was adequate.

A species accumulation curve was created to display the rate of species accumulation. The R^2 value (0.99) suggests that the data “fits” the species accumulation curve shown in Figure 4-3. By the twenty-fourth quadrat the rate of species accumulation was calculated at two species per quadrat. By 33 quadrats the rate of species accumulation was calculated to ≤ 1 species per quadrat. Botanica has determined that according to this data a sufficient number of quadrats were established in the survey area to adequately assess the floristic composition of the area.

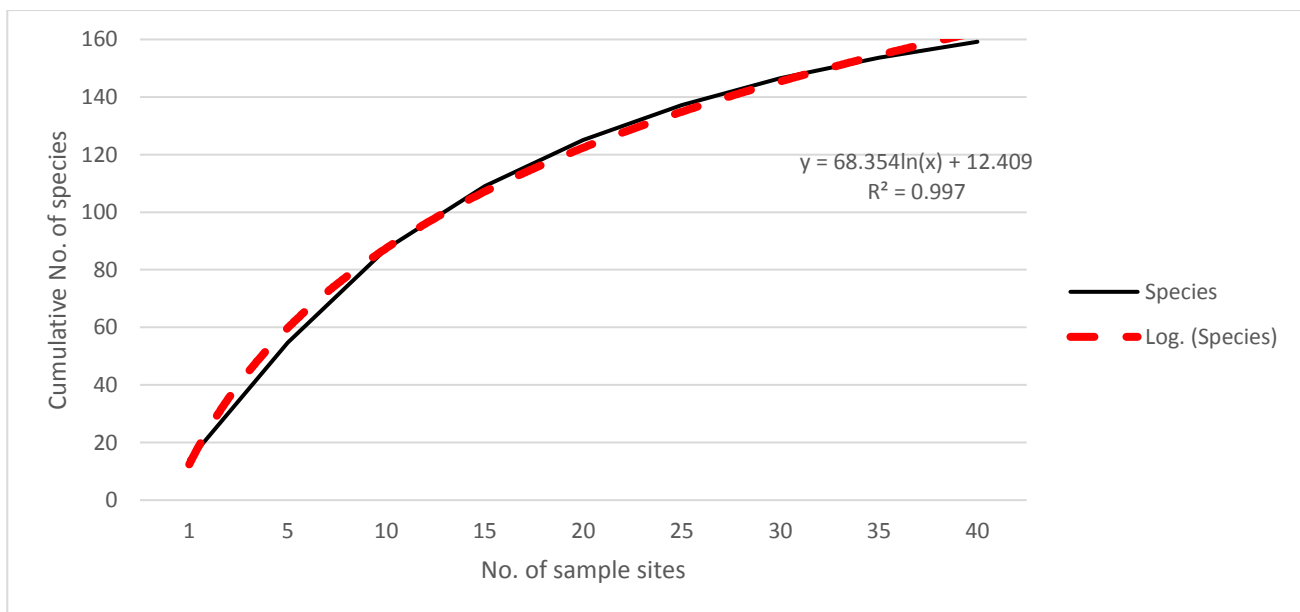


Figure 4-3: Species accumulation curve

4.2.5 Significant Flora

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016a) significant flora includes:

- flora being identified as threatened or priority species;
- locally endemic flora or flora associated with a restricted habitat type (e.g. surface water or groundwater dependent ecosystems);
- new species or anomalous features that indicate a potential new species;
- flora representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- unusual species, including restricted subspecies, varieties or naturally occurring hybrids; and
- flora with relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

No Threatened Flora taxa listed under Commonwealth or State legislation were identified within the survey area. Twelve Priority Flora as listed by DBCA were identified within the survey area:

1. *Acacia asepala* (P2);
2. *Bossiaea celata* (P3);
3. *Bossiaea flexuosa* (P3);
4. *Caesia viscida* (P2);
5. *Chorizema circinale* (P3);
6. *Cryptandra crispula* (P3);
7. *Grevillea prostrata* (P4);
8. *Microcorys* sp. Forrestania (V. English 2004) (P4);
9. *Microcybe* sp. Windy Hill (G.F. Craig 6583) (P3);
10. *Stylidium sejunctum* (P3);
11. *Teucrium* sp. dwarf (R. Davis 8813) (P3); and
12. *Verticordia multiflora* subsp. *solox* (P2).

Descriptions of these species are provided in the following sections. GPS locations of all Priority Flora recorded by Botanica are provided in Appendix 4. A map of all Priority Flora recorded in Figure 4-4 with more detailed maps provided in Appendix 4. No other significant flora (i.e. groundwater or surface water dependent, endemic, new or anomalous species, range extension, relictual or unusual species) were identified within the survey area.

Of the twelve Priority Flora taxa identified, nine are located within the proposed exploration footprint. An assessment on the potential impacts to the local occurrence of each taxon (based on number of plants recorded within 5km by Botanica Consulting and PEK Enviro) is provided in Table 4-10.

Table 4-10: Priority Flora impact assessment

Taxon	No. within drilling program	No. recorded within local area (within 20km)	% impact
<i>Acacia asepala</i> (P2)	119	846	14
<i>Bossiaea celata</i> (P3)	286	2470	12
<i>Bossiaea flexuosa</i> (P3)	0	0	0
<i>Caesia viscida</i> (P2)	3	518	1
<i>Chorizema circinale</i> (P3)	1	464	0
<i>Cryptandra crispula</i> (P3)	0	1050	0
<i>Grevillea prostrata</i> (P4)	3	55	5
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	402	10163	4
<i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3)	0	600	0
<i>Stylidium sejunctum</i> (P3)	10	65	15
<i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)	100	600	17
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	157	268	59

4.2.5.1 *Acacia asepala* (P2)

This taxon is described as a diffuse, much-branched shrub, which grows between 0.5-1.5 m high (Plate 5). It produces yellow flowers in August and occurs on red-brown sandy loam soils. This taxon occurs on undulating plains, along drainage lines (WAHERB, 2018). Botanica recorded 81 locations of this taxon within the survey area, none of which are DBCA known locations. This taxon was recorded within all four vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1);
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1); and
3. Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1); and
4. Mid Heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain (SP-H2).



Plate 5: *Acacia asepala* (P2)

4.2.5.2 *Bossiaea celata* (P3)

This taxon is described as a compact, intricately-branched shrub, which grows to 0.8 m high (Plate 6). It produces yellow/orange/red flowers from September to October. This taxon occurs on deep sands in open mallee (WAHERB, 2018). Botanica recorded 75 locations of this taxon within the survey area. There are two DBCA records of this taxon located within the survey area. This taxon was identified within three vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1);
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1);
and
3. Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1)



Plate 6: *Bossiaea celata* (P3)

4.2.5.3 *Bossiaea flexuosa* (P3)

This taxon is described as a compact shrub, which grows to 0.6 m high (Plate 7). It produces yellow/orange/red-brown flowers from September to November. This taxon occurs on deep sandy soils (WAHERB, 2018). Botanica recorded four locations of this taxon within the survey area. There are two DBCA records of this taxon located within the survey area. This taxon was identified within two vegetation associations:

1. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1);
and
2. Mid Heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain (SP-H2)



Plate 7: *Bossiaea flexuosa* (P3)

4.2.5.4 *Caesia viscida* (P2)

This taxon is described as a rhizomatous and tuberous, tufted perennial, which grows to 0.3 m high (Plate 8). It produces white flowers in November. This taxon occurs on aeolian sands of low dunes (WAHERB, 2018). Botanica recorded three locations of this taxon within the survey area. There is one DBCA records of this taxon located within the survey area. This taxon was identified within three vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1);
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1);
and
3. Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1)



Plate 8: *Caesia viscida* (P2)

4.2.5.5 *Chorizema circinale* (P3)

This taxon is described as a prostrate, scrambling, wiry shrub, which grows to 0.4 m high (Plate 9). It produces yellow/orange/red flowers from September to December. This taxon occurs on yellow sand, sandy clay with gravel and occurs on flats or within margins of gravel pits (WAHERB, 2018). Botanica recorded two locations of this taxon within the survey area. There are no DBCA records of this taxon located within the survey area. This taxon was identified within one vegetation association: Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1).



Plate 9: *Chorizema circinale* (P3)

4.2.5.6 *Cryptandra crispula* (P3)

This taxon is described as a non-spinescens shrub, which grows between 0.25-0.9 m high (Plate 10). This taxon occurs on brown sandy clay, yellow loamy sand, red soil and pebble soils. This taxon occurs on dune ridges, hills and near salt lakes (WAHERB, 2018). Botanica recorded two locations of this taxon within the survey area. There are no DBCA records of this taxon located within the survey area. This taxon was identified within two vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1); and
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1).



Plate 10: *Cryptandra crispula* (P3)

4.2.5.7 *Grevillea prostrata* (P4)

This taxon is described as a loose, prostrate shrub, which grows between 0.04-0.1 m high (Plate 11). It produces cream-white/ pink-red flowers from August to December or January. This taxon occurs on white, grey or yellow sand or gravelly soils of sandplains (WAHERB, 2018). Botanica recorded three locations of this taxon within the survey area. There is one DBCA records of this taxon located within the survey area. This taxon was identified within two vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1); and
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1).



Plate 11: *Grevillea prostrata* (P4) (WAHERB, 2018)

4.2.5.8 *Microcorys* sp. *Forrestania* (V. English 2004) (P4)

This taxon is described as a prostrate or erect shrub that grows up to 0.35-0.4m high (Plate 12). It produces white/purple flowers in January or April. It grows in yellow sandy clay or red-brown clay, and it can be found in open woodland or cleared areas (WAHERB, 2018). Botanica recorded 38 locations of this taxon within the survey area. There are two DBCA records of this taxon located within the survey area. This taxon was identified within two vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1); and
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1).



Plate 12: *Microcorys* sp. *Forrestania* (V. English 2004) (P4)

4.2.5.9 *Microcybe* sp. Windy Hill (G.F. Craig 6583) (P3)

No description for this taxon is available on Florabase (Plate 13). Botanica recorded one location of this taxon within the survey area. There are no DBCA records of this taxon located within the survey area. This taxon was identified within one vegetation association: Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1).



Plate 13: *Microcybe* sp. Windy Hill (G.F. Craig 6583) (P3)

4.2.5.10 *Stylidium sejunctum* (P3)

This taxon is described as a caespitose perennial herb that reaches heights of 0.25–0.45 metres (Plate 14). The flowers are white, pink and purple and bloom from September through November. It inhabits sites with clayey sand, loam or laterite on outcrops, upper slopes and breakaways (WAHERB, 2018). Botanica recorded one location of this taxon within the survey area. There are no DBCA records of this taxon located within the survey area. This taxon was identified within one vegetation association: Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1).



Plate 14: *Stylidium sejunctum* (P3)

4.2.5.11 *Teucrium* sp. dwarf (R. Davis 8813) (P3)

This taxon is described as a compact, dwarf shrub that grows up to 0.1m high and to 0.1m wide (Plate 15). It has white flowers in April and is found on hills and road verges (WAHERB, 2018). Botanica recorded four locations of this taxon within the survey area. There are no DBCA records of this taxon located within the survey area. This taxon was identified within two vegetation associations:

1. Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain (CLP-EW1); and
2. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1).



Plate 15: *Teucrium* sp. dwarf (R. Davis 8813) (P3)

4.2.5.12 *Verticordia multiflora* subsp. *solox* (P2)

This taxon is described as an erect to spreading shrub which grows between 0.2-0.6m high (Plate 16). It produces yellow flowers from October to December or January. This taxon occurs on yellow sand over gravel or sand over granite (WAHERB, 2018). Botanica recorded twenty-six locations of this taxon within the survey area. There is one DBCA records of this taxon located within the survey area. This taxon was identified within three vegetation associations:

1. Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain (SLP-MWS1);
2. Mid Heathland of *Allocasuarina* spp./ *Melaleuca hamata* on sandplain (SP-H1); and
3. Mid Heathland of *Acacia lasiocalyx*/ *Allocasuarina campestris* on sandplain (SP-H2).



Plate 16: *Verticordia multiflora* subsp. *solox* (P2)

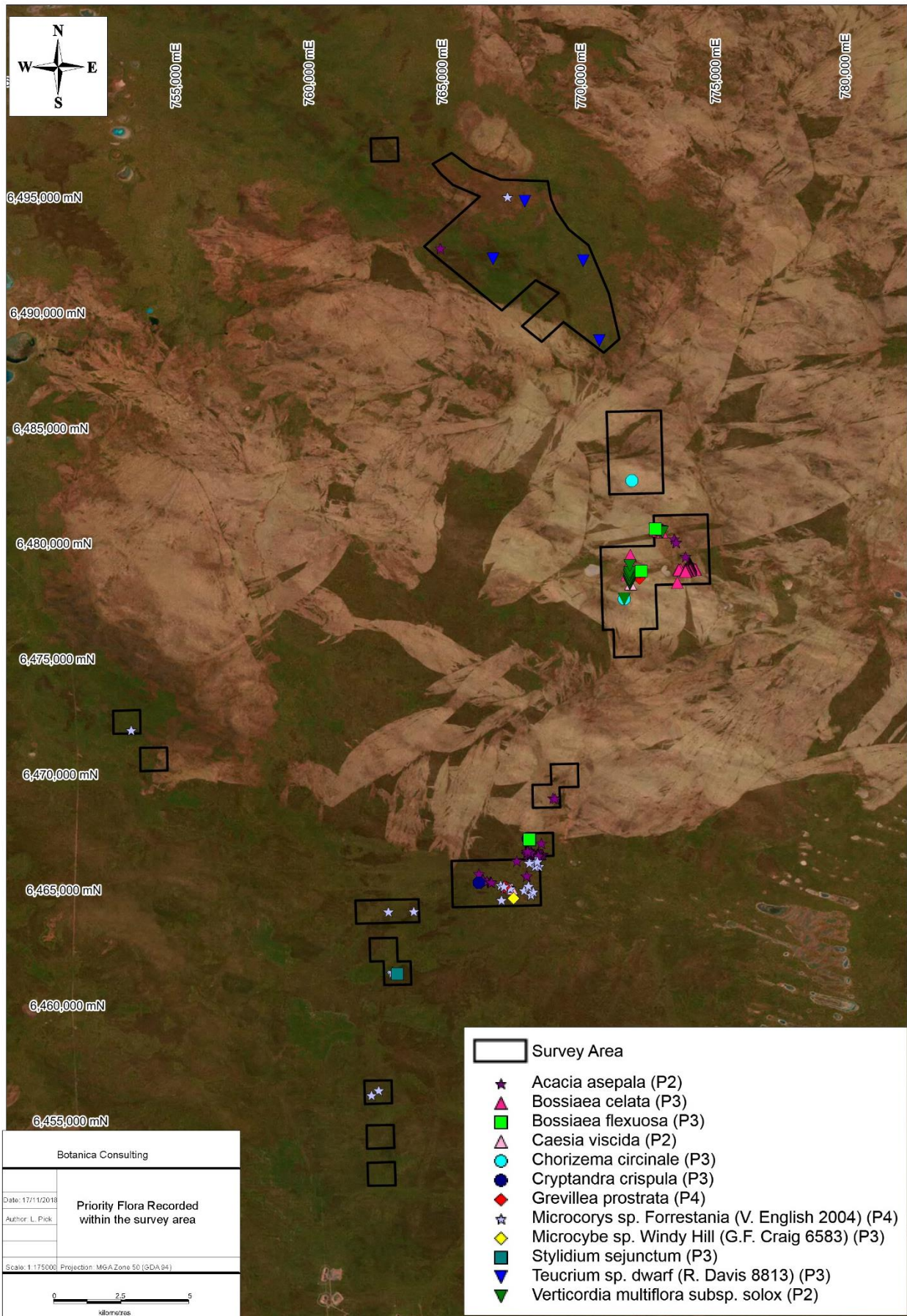


Figure 4-4: Flora of Conservation Significance identified within the Parker Dome Exploration Project survey area

4.2.6 Significant Vegetation

According to the EPA *Environmental Factor Guideline for Flora and Vegetation* (EPA, 2016b) significant vegetation includes:

- vegetation being identified as threatened or priority ecological communities;
- vegetation with restricted distribution;
- vegetation subject to a high degree of historical impact from threatening processes;
- vegetation which provides a role as a refuge; and
- vegetation providing an important function required to maintain ecological integrity of a significant ecosystem.

No TEC, restricted vegetation, highly disturbed vegetation, vegetation providing important refuge or significant ecological function was identified within the survey area.

The northern and western portion of the survey area (approximately 1755 ha of the total survey area and 43.9 ha of the proposed exploration footprint) is located within the *Parker Range Vegetation Complexes* which is listed by the DBCA as a Priority 3 Ecological Community. The Parker Range Vegetation Complex is described as follows (DBCA, 2018): *Hakea pendula* Tall Shrubland is of particular significance. *Eucalyptus sheathiana* with *E. transcontinentalis* and/or *E. eremophila* woodland on sandy soils at the base of ridges and low rises; *E. longicornis* with *E. corrugata* and *E. salubris* or *E. myriadena* woodland on broad flats; *E. salmonophloia* and *E. salubris* woodland on broad flats; *Allocasuarina acutivalvis* and *A. corniculata* on deeper sandy soils of lateritic ridges; *E. capillosa* subsp. *polyclada* and/or *E. loxophleba* over *Hakea pendens* thicket on skeletal soils on ridges (laterites, breakaways and massive gossanous caps); and *Callitris glaucophylla* low open woodland on massive greenstone ridges.

The southern portion of the survey area (approximately 136 ha of the total survey area and 0.6ha of the proposed exploration footprint) is located within the Mount Holland buffer of the *Ironcap Hills Vegetation Complexes* which is listed by the DBCA as a Priority 3 Ecological Community. This Vegetation Complex was first described by Beard (1972) as follows: Dense thicket, approximately 2 m tall, consisting predominantly of *Casuarina campestris*, *Calothamnus asper*, *Hakea* sp., *Banksia* sp., *Callitris preissii*, *Isopogon teretifolius*, *Santalum acuminatum*, *Melaleuca* sp. and *Leptospermum* sp.

4.3 Matters of National Environmental Significance

None of the following matters of national environmental significance as defined by the Commonwealth EPBC Act were identified within the survey area:

- Nationally threatened flora species;
- World heritage properties;
- National heritage places;
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed);
- Nationally threatened ecological communities;
- Commonwealth marine area;
- The Great Barrier Reef Marine Park; and
- Nuclear actions (including uranium mining) a water resource, in relation to coal seam gas development and large coal mining development.

4.4 Matters of State Environmental Significance

There are no wetlands of national importance (ANCA Wetlands) or conservation category wetlands within the survey area. The survey area does not contain any TEC listed under the EP Act. No threatened flora species listed under the WC Act were recorded within the survey area.

The northern and western portion of the survey area is located within the *Parker Range Vegetation Complexes* which is listed by the DBCA as a Priority 3 Ecological Community. The southern portion of the survey area is located within the Mount Holland buffer of the *Ironcap Hills Vegetation Complexes* which is listed by the DBCA as a Priority 3 Ecological Community.

Approximately 6837 ha of the survey area is located within the Jilbadji Nature Reserve which is managed by DBCA as a Class C Reserve. The Jilbadji Nature Reserve is also listed as an ESA under the EP Act.

5 Bibliography

ASRIS (2014), *Atlas of Australian Soils Database*, Australian Soil Resource Information System.
Beard, J.S., (1990), *Plant Life of Western Australia*, Kangaroo Press Pty Ltd, NSW.

Botanica Consulting (2010), *Flora and Vegetation of the Parker Range Region*. Prepared for Cazaly Resources Ltd.

Botanica Consulting (2016a), *Level 1 flora survey Martins Prospect*. Prepared for Hanking Gold Mine Limited

Botanica Consulting (2016b), *Level 2 flora and fauna survey Redwing Project*. Prepared for Hanking Gold Mine Limited

Botanica Consulting (2017), Targeted search for flora of conservation significance- Jilbadji Nature Reserve. Prepared for Western Areas Limited.

BoM, (2018), Southern Cross Climate Data, Bureau of Meteorology.

Available: <http://www.bom.gov.au/climate>

Accessed: 19th October 2018

BoM (2018b). Groundwater Dependent Ecosystems Atlas. Bureau of Meteorology

Available: <http://www.bom.gov.au/water/groundwater/gde/map.shtml>

Accessed: 10th October 2018

Cowan (2001), *A Biodiversity Audit of Western Australia's 53 Biogeographical Region in 2001- Southern Cross Subregion (COO2)*, Department of Conservation and Land Management.

DAFWA (2011), *Pre-European Vegetation - Western Australia (NVIS Compliant Version GIS file)*, Department of Agriculture and Food Western Australia.

DAFWA (2014), *Soil Landscape System of Western Australia*, Department of Agriculture and Food Western Australia.

DBCAs (2017), *2017 Statewide Vegetation Statistics (formerly the CAR Reserve Analysis)*. Department of Biodiversity, Conservation and Attractions

DBCAs, (2018a), *Threatened and Priority Flora Database search results*, Department of Biodiversity, Conservation and Attractions

DBCAs, (2018b), *Threatened Ecological Community and Priority Ecological Community database search*, Department of Biodiversity, Conservation and Attractions

DBCAs (2018a), *Nature Map Database search*, Department of Biodiversity, Conservation and Attractions

Available: <https://naturemap.dpaw.wa.gov.au/>

Accessed: 12th October 2018

DotEE, (2012), *Interim Biogeographic Regionalisation for Australia (IBRA)*, Version 7, Department of the Environment and Energy

DotEE, (2017), *National Vegetation Information System (NVIS) Major Vegetation Groups, Version 4.2*, Department of the Environment and Energy

DotEE, (2017), *Protected Matters Search Tool, Environment Protection and Biodiversity Conservation Act 1999*, Department of the Environment and Energy

DotEE (2018b) Species Profiles and Threats Database, Department of Environment and Energy
Available: <http://www.environment.gov.au/sprat>
Accessed: 12th October 2018

DPIRD (2018), *Declared Organism-database search*, Department of Primary Industries and Regional Development, Western Australia
Available: <https://www.agric.wa.gov.au/bam/western-australian-organism-list-waol>
Accessed: 22nd September 2018

EPA (2016), *Technical Guide - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016*. Environmental Protection Authority.

Gibson, N and Lyons, M.N. (1998), *Flora and Vegetation of the Eastern Goldfields Ranges: Part 3. Parker Range*.

How, R.A. et al. (1988), The biological survey of the eastern goldfields of Western Australia. Part 4. Lake Johnston-Hyden Study Area. Records of the WAM, supplement No. 30.

IUCN (2016a), *The IUCN Red List of Threatened Species. Version 2016-3*. International Union for Conservation of Nature.

IUCN, (2016b), *The IUCN Red List of Ecosystems*. International Union for Conservation of Nature
McKenzie, N.L., May J.E. and McKenna, S, (2002) *Bioregional Summary of the 2002 Biodiversity Audit for Western Australia*.

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

Keith Lindbeck and Associates. (2010) *Cazaly Resources Limited, Parker Range Iron Ore Project Mt Caudan Deposit, Public Environmental Review*, Report prepared for Cazaly Resources Limited. November 2010.

Keith Lindbeck and Associates Environmental Management Consultants. (2010) *Parker Range Iron Ore Project: Fauna Assessment*, Unpublished report prepared for Cazaly Resources Limited

Mc Donald, R.C, Isbell, R.F & Speight, J.G (1998), *Australian Soil and Land Survey Field Handbook (3rd edn)*. CSIRO Publishing: Melbourne.

Mitchell, A. & Wilcox, D. G. (1988), *Arid Shrubland Plants of Western Australia*, University of Western Australia Press, Nedlands, WA.

MWH, A. (2014) *Cheritons Find Level 1 Vegetation, Flora and Targeted Flora Survey*, CHER-VO-14001.

PEK Enviro (2016), Forrester Nickel Operation Regional Exploration Program Level 1 vegetation and flora survey Parker Dome project in the Jilbadji Nature Reserve.

Recon Environmental (2007), *Burbidge Vegetation Survey*. Prepared for St Barbara Limited.

Riedel Resources Ltd. (2012b) *Riedel Resources Ltd (Audax Minerals Pty Ltd) Conservation Management Plan Cheritons Find E77/1793*, Report prepared for Riedel Resources Ltd, October 2012.

RPS Environment and Planning Pty Ltd. (2012) *Pre-clearing targeted significant flora and malleefowl survey*, Report prepared for Audax Minerals Pty Ltd, September 2012.

RPS, G. (2012) *Pre-clearing Targeted Significant Flora and Mallee Fowl Survey*, R1224501.

Tille, P. (2006), *Soil Landscapes of Western Australia's Rangelands and Arid Interior*, Department of Agriculture and Food Western Australia.

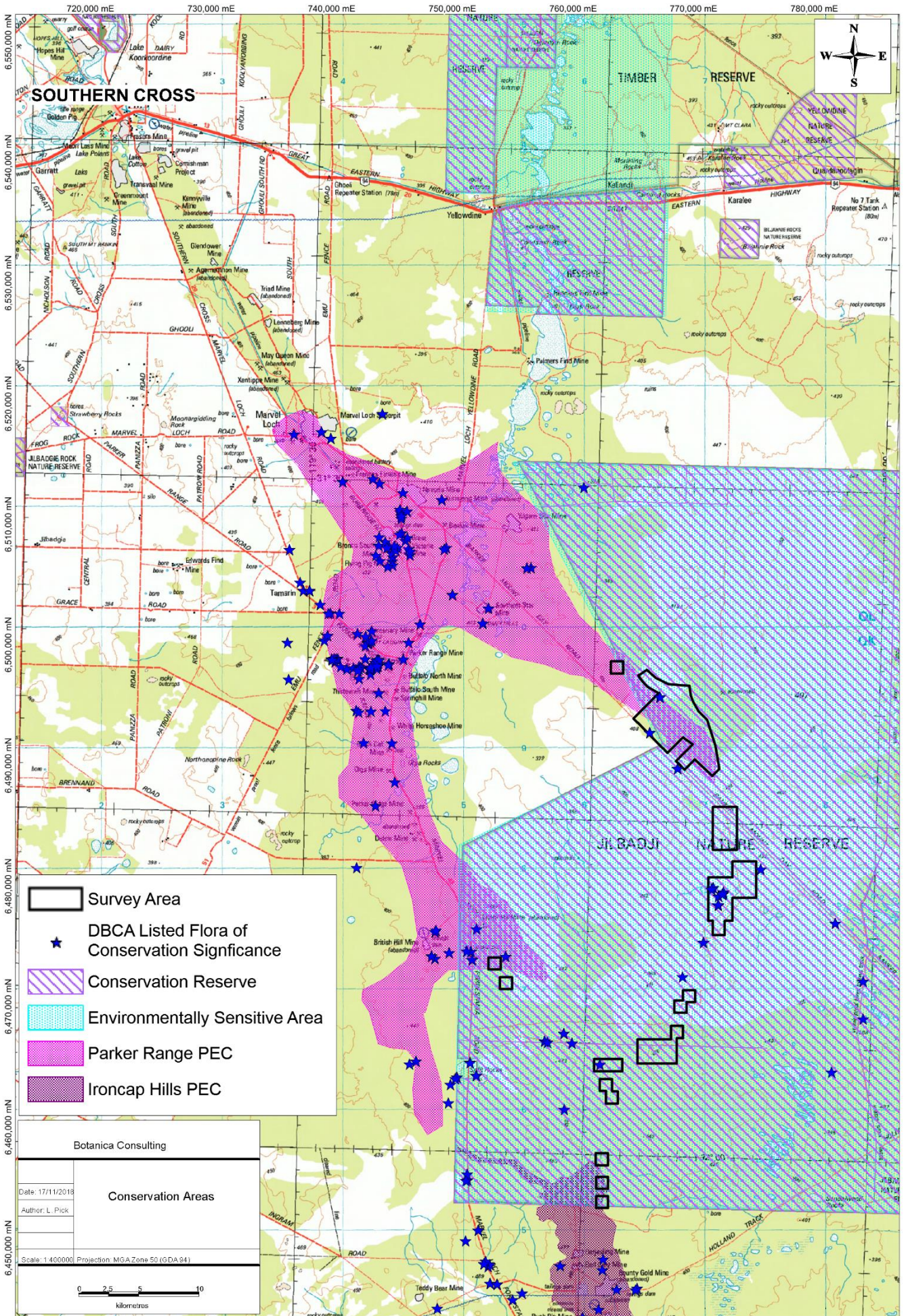
WAHERB, (2018), *Florabase – Information on the Western Australian Flora*, Department of Biodiversity, Conservation and Attractions.

Available: <https://florabase.dpaw.wa.gov.au/>

Accessed 12th October 2018

Western Areas Limited (2016), Forresteria Nickel Operation Jilbadji Conservation Management Plan.

Appendix 1: Regional maps of the survey area in relation to areas of conservation significance



Appendix 2: List of species identified within each vegetation association

(A) Blue text Denotes Annual species; (P) Red text Denotes Flora of Conservation Significance

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Amaranthaceae	<i>Ptilotus</i>	<i>helipteroides</i> (A)	*			
Apocynaceae	<i>Alyxia</i>	<i>buxifolia</i>	*		*	
Asparagaceae	<i>Lomandra</i>	<i>effusa</i>	*	*	*	*
Asteraceae	<i>Olearia</i>	<i>homolepis</i>	*			
Asteraceae	<i>Olearia</i>	<i>muelleri</i>	*		*	
Asteraceae	<i>Olearia</i>	<i>pimeleoides</i>	*	*		
Asteraceae	<i>Waitzia</i>	<i>acuminata</i> (A)			*	
Boraginaceae	<i>Halgania</i>	<i>andromedifolia</i>	*		*	
Boraginaceae	<i>Halgania</i>	<i>cyanea</i>		*		
Boryaceae	<i>Borya</i>	<i>constricta</i>			*	*
Casuarinaceae	<i>Allocasuarina</i>	<i>acutivalvis</i>		*	*	
Casuarinaceae	<i>Allocasuarina</i>	<i>campestris</i>			*	*
Casuarinaceae	<i>Allocasuarina</i>	<i>corniculata</i>		*	*	*
Casuarinaceae	<i>Allocasuarina</i>	<i>helmsii</i>	*			
Casuarinaceae	<i>Allocasuarina</i>	sp. (sterile)		*	*	
Chenopodiaceae	<i>Atriplex</i>	<i>stipitata</i>	*			
Chenopodiaceae	<i>Sclerolaena</i>	<i>eurotioides</i>	*			
Chenopodiaceae	<i>Sclerolaena</i>	<i>uniflora</i>	*			
Chenopodiaceae	<i>Tecticornia</i>	<i>halocnemoides</i>	*			
Convolvulaceae	<i>Wilsonia</i>	<i>humilis</i>	*			
Cupressaceae	<i>Callitris</i>	<i>preissii</i>		*	*	
Cyperaceae	<i>Gahnia</i>	<i>ancistrophylla</i>	*	*	*	
Cyperaceae	<i>Gahnia</i>	<i>aristata</i>			*	
Cyperaceae	<i>Lepidosperma</i>	<i>sanguinolentum</i>	*	*	*	*
Cyperaceae	<i>Lepidosperma</i>	<i>drummondii</i>		*		
Dilleniaceae	<i>Hibbertia</i>	<i>eatoniae</i>		*		
Dilleniaceae	<i>Hibbertia</i>	<i>glomerosa</i>	*			
Dilleniaceae	<i>Hibbertia</i>	<i>pungens</i>			*	
Dilleniaceae	<i>Hibbertia</i>	<i>rostellata</i>		*	*	*
Droseraceae	<i>Drosera</i>	<i>macrantha</i> subsp. <i>macrantha</i> (A)			*	*
Ericaceae	<i>Astroloma</i>	<i>serratifolium</i>			*	

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Ericaceae	<i>Leucopogon</i>	sp. outer wheatbelt (M. Hislop 30)			*	
Ericaceae	<i>Lysinema</i>	<i>ciliatum</i>			*	
Euphorbiaceae	<i>Bertya</i>	<i>dimerostigma</i>		*		
Euphorbiaceae	<i>Beyeria</i>	<i>minor</i>		*	*	
Euphorbiaceae	<i>Beyeria</i>	<i>sulcata</i>	*	*		
Fabaceae	<i>Acacia</i>	<i>acanthoclada</i> subsp. <i>acanthoclada</i>	*			
Fabaceae	<i>Acacia</i>	<i>acuminata</i>	*			
Fabaceae	<i>Acacia</i>	<i>asepala</i> (P2)	*	*	*	*
Fabaceae	<i>Acacia</i>	<i>assimilis</i> subsp. <i>assimilis</i>		*	*	*
Fabaceae	<i>Acacia</i>	<i>collettioides</i>	*		*	
Fabaceae	<i>Acacia</i>	<i>coolgardiensis</i>		*	*	
Fabaceae	<i>Acacia</i>	<i>deficiens</i>	*	*		
Fabaceae	<i>Acacia</i>	<i>enervia</i> subsp. <i>enervia</i>			*	
Fabaceae	<i>Acacia</i>	<i>erinacea</i>	*	*		
Fabaceae	<i>Acacia</i>	<i>evenulosa</i>	*			
Fabaceae	<i>Acacia</i>	<i>fragilis</i>			*	
Fabaceae	<i>Acacia</i>	<i>hemiteles</i>	*	*	*	
Fabaceae	<i>Acacia</i>	<i>heteroneura</i> var. <i>jutsonii</i>		*	*	
Fabaceae	<i>Acacia</i>	<i>intricata</i>	*			
Fabaceae	<i>Acacia</i>	<i>lasiocalyx</i>				*
Fabaceae	<i>Acacia</i>	<i>merrallii</i>	*	*	*	
Fabaceae	<i>Acacia</i>	<i>neurophylla</i> subsp. <i>neurophylla</i>	*		*	
Fabaceae	<i>Acacia</i>	<i>spinosissima</i>		*		
Fabaceae	<i>Acacia</i>	<i>yorkrakinensis</i> subsp. <i>acrita</i>		*	*	
Fabaceae	<i>Bosiaea</i>	<i>celata</i> (P3)	*	*	*	
Fabaceae	<i>Bosiaea</i>	<i>flexuosa</i> (P3)		*		*
Fabaceae	<i>Chorizema</i>	<i>circinale</i> (P3)			*	
Fabaceae	<i>Daviesia</i>	<i>argillacea</i>	*		*	
Fabaceae	<i>Daviesia</i>	<i>benthamii</i>	*	*		
Fabaceae	<i>Erichsenia</i>	<i>uncinata</i>			*	
Fabaceae	<i>Gastrolobium</i>	<i>aculeatum</i>			*	
Fabaceae	<i>Gastrolobium</i>	<i>spinosum</i>			*	
Fabaceae	<i>Gompholobium</i>	<i>viscidulum</i>		*		
Fabaceae	<i>Jacksonia</i>	<i>nematoclada</i>		*		

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Fabaceae	<i>Mirbelia</i>	<i>depressa</i>			*	
Fabaceae	<i>Senna</i>	<i>artemisioides</i> subsp. <i>filifolia</i>	*		*	
Fabaceae	<i>Templetonia</i>	<i>aculeata</i>		*		
Fabaceae	<i>Templetonia</i>	<i>sulcata</i>	*			
Fabaceae	<i>Urodon</i>	<i>dasyphyllus</i>		*		
Goodeniaceae	<i>Cooperookia</i>	<i>strophiolata</i>	*	*		
Goodeniaceae	<i>Dampiera</i>	<i>angulata</i> subsp. Peak Charles (K.R. Newbey 5402)			*	*
Goodeniaceae	<i>Dampiera</i>	<i>tenuicaulis</i>			*	
Goodeniaceae	<i>Lechenaultia</i>	<i>brevifolia</i>		*		
Goodeniaceae	<i>Scaevola</i>	<i>spinescens</i>	*		*	
Hemerocallidaceae	<i>Caesia</i>	<i>viscida</i> (P2)	*	*	*	
Hemerocallidaceae	<i>Dianella</i>	<i>revoluta</i>	*	*	*	*
Lamiaceae	<i>Microcorys</i>	sp. <i>Forrestania</i> (V. English 2004) (P4)	*	*		
Lamiaceae	<i>Pityrodia</i>	<i>lepidota</i>		*	*	
Lamiaceae	<i>Teucrium</i>	sp. <i>dwarf</i> (R. Davis 8813) (P3)	*	*		
Lamiaceae	<i>Westringia</i>	<i>cephalantha</i>	*	*		
Lamiaceae	<i>Westringia</i>	<i>rigida</i>	*	*		
Malvaceae	<i>Thomasia</i>	<i>sarotes</i>			*	
Myrtaceae	<i>Baeckea</i>	? <i>grandibracteata</i>			*	
Myrtaceae	<i>Baeckea</i>	<i>elderiana</i>				*
Myrtaceae	<i>Beaufortia</i>	<i>bracteosa</i>		*	*	
Myrtaceae	<i>Beaufortia</i>	<i>puberula</i>		*		
Myrtaceae	<i>Calytrix</i>	<i>breviseta</i> subsp. <i>stipulosa</i>			*	
Myrtaceae	<i>Calytrix</i>	<i>leschenaultii</i>			*	
Myrtaceae	<i>Calytrix</i>	<i>tetragona</i>			*	
Myrtaceae	<i>Chamelaucium</i>	<i>pauciflorum</i> subsp. <i>pauciflorum</i>		*	*	
Myrtaceae	<i>Chamelaucium</i>	<i>pauciflorum</i> subsp. <i>Perenjori</i> (B.J. Conn 2181)				*
Myrtaceae	<i>Chamelaucium</i>	sp. <i>Bendering</i> (T.J. Alford 110)			*	
Myrtaceae	<i>Eucalyptus</i>	<i>burracoppinensis</i>			*	
Myrtaceae	<i>Eucalyptus</i>	<i>cylindriflora</i>	*	*	*	
Myrtaceae	<i>Eucalyptus</i>	<i>eremophila</i> subsp. <i>eremophila</i>	*	*	*	
Myrtaceae	<i>Eucalyptus</i>	<i>gracilis</i>	*	*		
Myrtaceae	<i>Eucalyptus</i>	<i>longicornis</i>	*			

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Myrtaceae	<i>Eucalyptus</i>	<i>pileata</i>		*		
Myrtaceae	<i>Eucalyptus</i>	<i>platycorys</i>		*	*	
Myrtaceae	<i>Eucalyptus</i>	<i>salicola</i>	*			
Myrtaceae	<i>Eucalyptus</i>	<i>salmonophloia</i>	*		*	
Myrtaceae	<i>Eucalyptus</i>	<i>salubris</i>	*			
Myrtaceae	<i>Eucalyptus</i>	sp. (sterile)	*	*	*	
Myrtaceae	<i>Eucalyptus</i>	<i>transcontinentalis</i>		*		
Myrtaceae	<i>Eucalyptus</i>	<i>urna</i>	*			
Myrtaceae	<i>Euryomyrtus</i>	<i>leptospermoides</i>		*		
Myrtaceae	<i>Hysterobaeckea</i>	<i>ochropetala</i> subsp. <i>reliqua</i>		*	*	
Myrtaceae	<i>Leptospermum</i>	<i>roei</i>		*	*	*
Myrtaceae	<i>Melaleuca</i>	<i>acuminata</i> subsp. <i>acuminata</i>	*	*		
Myrtaceae	<i>Melaleuca</i>	<i>cordata</i>		*	*	*
Myrtaceae	<i>Melaleuca</i>	<i>eleuterostachya</i>		*		
Myrtaceae	<i>Melaleuca</i>	<i>hamata</i>	*	*	*	
Myrtaceae	<i>Melaleuca</i>	<i>johnsonii</i>		*		
Myrtaceae	<i>Melaleuca</i>	<i>lateriflora</i>	*	*		
Myrtaceae	<i>Melaleuca</i>	<i>laxiflora</i>		*		
Myrtaceae	<i>Melaleuca</i>	<i>pauperiflora</i> subsp. <i>fastigiata</i>	*			
Myrtaceae	<i>Melaleuca</i>	<i>sparsiflora</i>	*			*
Myrtaceae	<i>Micromyrtus</i>	<i>erichsenii</i>		*		
Myrtaceae	<i>Micromyrtus</i>	<i>obovata</i>			*	*
Myrtaceae	<i>Thryptomene</i>	<i>kochii</i>		*	*	
Myrtaceae	<i>Verticordia</i>	<i>chrysantha</i>		*		
Myrtaceae	<i>Verticordia</i>	<i>multiflora</i> subsp. <i>solox</i> (P2)		*	*	*
Orchidaceae	<i>Pterostylis</i>	<i>barbata</i> (A)		*		
Poaceae	<i>Austrostipa</i>	<i>nitida</i>	*			
Poaceae	<i>Triodia</i>	<i>rigidissima</i>		*	*	
Poaceae	<i>Triodia</i>	<i>scariosa</i>			*	*
Proteaceae	<i>Banksia</i>	<i>elderiana</i>			*	*
Proteaceae	<i>Banksia</i>	<i>laevigata</i> subsp. <i>fuscolutea</i>		*	*	
Proteaceae	<i>Grevillea</i>	<i>acuaria</i>	*	*		*
Proteaceae	<i>Grevillea</i>	<i>ceratocarpa</i>			*	*
Proteaceae	<i>Grevillea</i>	<i>hookeriana</i> subsp. <i>apiciloba</i>			*	*

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Proteaceae	<i>Grevillea</i>	<i>huegelii</i>	*	*	*	
Proteaceae	<i>Grevillea</i>	<i>oligantha</i>		*		
Proteaceae	<i>Grevillea</i>	<i>oncogyne</i>	*	*	*	
Proteaceae	<i>Grevillea</i>	<i>paradoxa</i>			*	
Proteaceae	<i>Grevillea</i>	<i>prostrata</i> (P4)	*	*		
Proteaceae	<i>Hakea</i>	<i>commutata</i>		*		
Proteaceae	<i>Hakea</i>	<i>corymbosa</i>		*	*	
Proteaceae	<i>Hakea</i>	<i>cygna</i> subsp. <i>cygna</i>		*	*	
Proteaceae	<i>Hakea</i>	<i>erecta</i>		*		
Proteaceae	<i>Hakea</i>	<i>francisiana</i>		*	*	
Proteaceae	<i>Hakea</i>	<i>scoparia</i> subsp. <i>scoparia</i>	*			
Proteaceae	<i>Isopogon</i>	<i>scabriusculus</i> subsp. <i>pubifloris</i>		*	*	
Proteaceae	<i>Persoonia</i>	<i>coriacea</i>			*	*
Proteaceae	<i>Persoonia</i>	<i>helix</i>		*		
Proteaceae	<i>Petrophile</i>	<i>stricta</i>		*		
Proteaceae	<i>Synaphea</i>	<i>interioris</i>			*	
Proteaceae	<i>Synaphea</i>	<i>spinulosa</i> subsp. <i>major</i>			*	
Restionaceae	<i>Desmocladus</i>	<i>myriocladus</i>			*	
Rhamnaceae	<i>Cryptandra</i>	<i>aridicola</i>		*		
Rhamnaceae	<i>Cryptandra</i>	<i>crispula</i> (P3)	*	*		
Rhamnaceae	<i>Cryptandra</i>	<i>minutifolia</i> subsp. <i>brevistyla</i>			*	*
Rutaceae	<i>Drummondita</i>	<i>hassellii</i>		*	*	
Rutaceae	<i>Microcybe</i>	<i>multiflora</i>	*			
Rutaceae	<i>Microcybe</i>	sp. Windy Hill (G.F. Craig 6583) (P3)	*			
Rutaceae	<i>Phebalium</i>	<i>filifolium</i>		*	*	
Rutaceae	<i>Phebalium</i>	<i>megaphyllum</i>		*		
Rutaceae	<i>Phebalium</i>	<i>tuberculosum</i>	*	*		
Santalaceae	<i>Exocarpos</i>	<i>aphyllus</i>	*	*	*	
Santalaceae	<i>Exocarpos</i>	<i>sparteus</i>		*	*	
Santalaceae	<i>Santalum</i>	<i>acuminatum</i>	*	*		*
Santalaceae	<i>Santalum</i>	<i>murrayanum</i>	*			
Sapindaceae	<i>Dodonaea</i>	<i>bursariifolia</i>		*		
Sapindaceae	<i>Dodonaea</i>	<i>stenozyga</i>	*			
Scrophulariaceae	<i>Eremophila</i>	<i>caerulea</i> subsp. <i>merrallii</i>	*			

Family	Genus	Taxon	CLP-EW1	SLP-MWS1	SP-H1	SP-H2
Scrophulariaceae	<i>Eremophila</i>	<i>decipiens</i> subsp. <i>decipiens</i>	*			
Scrophulariaceae	<i>Eremophila</i>	<i>dichroantha</i>	*			
Scrophulariaceae	<i>Eremophila</i>	<i>drummondii</i>		*		
Scrophulariaceae	<i>Eremophila</i>	<i>ionantha</i>	*	*	*	
Scrophulariaceae	<i>Eremophila</i>	<i>maculata</i>			*	
Scrophulariaceae	<i>Eremophila</i>	<i>oppositifolia</i> subsp. <i>angustifolia</i>	*			
Stylidiaceae	<i>Stylidium</i>	<i>sejunctum</i> (P3)	*			
Thymelaeaceae	<i>Pimelea</i>	<i>aeruginosa</i>		*	*	
Thymelaeaceae	<i>Pimelea</i>	<i>suaveolens</i> subsp. <i>flava</i>	*			
Xanthorrhoeaceae	<i>Xanthorrhoea</i>	<i>thorntonii</i>		*	*	

Appendix 3: Vegetation Condition Rating

Vegetation Condition Rating	South West and Interzone Botanical Provinces	Eremaean and Northern 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.	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
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.	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
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.	More obvious signs of damage caused by human activity since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
Poor		Still retains basic vegetation structure or ability to regenerate it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
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.	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
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.	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising weed or crop species with isolated native trees or shrubs.

Appendix 4: Priority Flora Locations Recorded by Botanica

Red Shading-Flora within exploration footprint

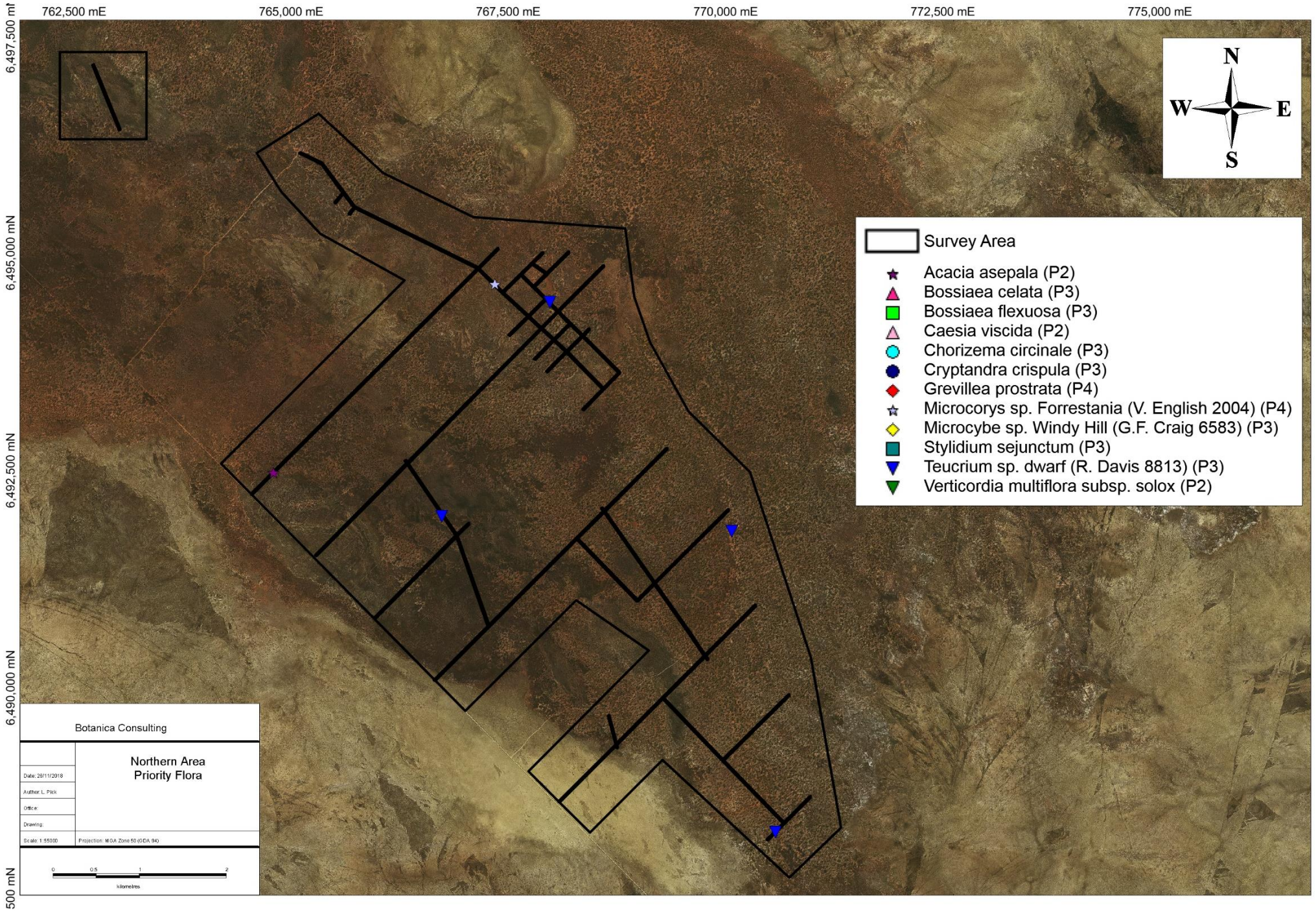
Taxon	Zone	Easting	Northing	No. Plants
<i>Acacia asepala</i> (P2)	50 J	767209	6466024	1
<i>Acacia asepala</i> (P2)	50 J	767231	6466013	2
<i>Acacia asepala</i> (P2)	50 J	767266	6466007	1
<i>Acacia asepala</i> (P2)	50 J	767302	6465995	2
<i>Acacia asepala</i> (P2)	50 J	767311	6465991	3
<i>Acacia asepala</i> (P2)	50 J	767329	6465993	4
<i>Acacia asepala</i> (P2)	50 J	767350	6465994	2
<i>Acacia asepala</i> (P2)	50 J	767376	6465991	2
<i>Acacia asepala</i> (P2)	50 J	767388	6465988	4
<i>Acacia asepala</i> (P2)	50 J	767397	6465989	2
<i>Acacia asepala</i> (P2)	50 J	767410	6465995	6
<i>Acacia asepala</i> (P2)	50 J	767430	6466000	1
<i>Acacia asepala</i> (P2)	50 J	767430	6465986	2
<i>Acacia asepala</i> (P2)	50 J	767579	6465994	3
<i>Acacia asepala</i> (P2)	50 J	767595	6465993	2
<i>Acacia asepala</i> (P2)	50 J	767703	6465990	2
<i>Acacia asepala</i> (P2)	50 J	767715	6465998	3
<i>Acacia asepala</i> (P2)	50 J	767772	6465998	2
<i>Acacia asepala</i> (P2)	50 J	767776	6465988	4
<i>Acacia asepala</i> (P2)	50 J	767734	6466000	4
<i>Acacia asepala</i> (P2)	50 J	767697	6466000	4
<i>Acacia asepala</i> (P2)	50 J	767679	6466007	1
<i>Acacia asepala</i> (P2)	50 J	767625	6466011	2
<i>Acacia asepala</i> (P2)	50 J	767606	6466007	5
<i>Acacia asepala</i> (P2)	50 J	767581	6466006	2
<i>Acacia asepala</i> (P2)	50 J	767556	6466007	2
<i>Acacia asepala</i> (P2)	50 J	767476	6466010	2
<i>Acacia asepala</i> (P2)	50 J	767445	6466005	4
<i>Acacia asepala</i> (P2)	50 J	767433	6466010	5
<i>Acacia asepala</i> (P2)	50 J	767405	6466003	4
<i>Acacia asepala</i> (P2)	50 J	767382	6466003	2
<i>Acacia asepala</i> (P2)	50 J	767348	6466002	1
<i>Acacia asepala</i> (P2)	50 J	767331	6466006	1
<i>Acacia asepala</i> (P2)	50 J	767307	6466005	2
<i>Acacia asepala</i> (P2)	50 J	767190	6466050	2
<i>Acacia asepala</i> (P2)	50 J	767191	6466023	2
<i>Acacia asepala</i> (P2)	50 J	767219	6466028	2
<i>Acacia asepala</i> (P2)	50 J	767327	6466023	2
<i>Acacia asepala</i> (P2)	50 J	767335	6466040	1
<i>Acacia asepala</i> (P2)	50 J	767340	6466047	1
<i>Acacia asepala</i> (P2)	50 J	767341	6466058	5
<i>Acacia asepala</i> (P2)	50 J	767349	6466072	1
<i>Acacia asepala</i> (P2)	50 J	767353	6466081	2
<i>Acacia asepala</i> (P2)	50 J	767357	6466100	1
<i>Acacia asepala</i> (P2)	50 J	767359	6466108	1
<i>Acacia asepala</i> (P2)	50 J	767353	6466110	1
<i>Acacia asepala</i> (P2)	50 J	767335	6466097	2

Taxon	Zone	Easting	Northing	No. Plants
<i>Acacia asepala</i> (P2)	50 J	767329	6466095	4
<i>Acacia asepala</i> (P2)	50 J	767256	6466120	1
<i>Acacia asepala</i> (P2)	50 J	767214	6466132	3
<i>Acacia asepala</i> (P2)	50 J	767200	6466130	1
<i>Acacia asepala</i> (P2)	50 J	766806	6465742	1
<i>Acacia asepala</i> (P2)	50 J	767256	6466128	1
<i>Acacia asepala</i> (P2)	50 J	767221	6466144	1
<i>Acacia asepala</i> (P2)	50 J	768223	6468424	1
<i>Acacia asepala</i> (P2)	50 J	768294	6468406	1
<i>Acacia asepala</i> (P2)	50 J	765406	6465224	1
<i>Acacia asepala</i> (P2)	50 J	765522	6464967	1
<i>Acacia asepala</i> (P2)	50 J	765540	6464967	1
<i>Acacia asepala</i> (P2)	50 J	765544	6464967	1
<i>Acacia asepala</i> (P2)	50 J	765544	6464965	1
<i>Acacia asepala</i> (P2)	50 J	765545	6464962	1
<i>Acacia asepala</i> (P2)	50 J	765549	6464959	1
<i>Acacia asepala</i> (P2)	50 J	765689	6464899	1
<i>Acacia asepala</i> (P2)	50 J	765805	6464857	1
<i>Acacia asepala</i> (P2)	50 J	765817	6464852	1
<i>Acacia asepala</i> (P2)	50 J	765840	6464844	1
<i>Acacia asepala</i> (P2)	50 J	765849	6464835	1
<i>Acacia asepala</i> (P2)	50 J	766330	6464641	1
<i>Acacia asepala</i> (P2)	50 J	766335	6464642	3
<i>Acacia asepala</i> (P2)	50 J	767145	6465069	4
<i>Acacia asepala</i> (P2)	50 J	767171	6465089	1
<i>Acacia asepala</i> (P2)	50 J	767578	6465873	1
<i>Acacia asepala</i> (P2)	50 J	767590	6465897	8
<i>Acacia asepala</i> (P2)	50 J	767602	6465941	4
<i>Acacia asepala</i> (P2)	50 J	767731	6466484	3
<i>Acacia asepala</i> (P2)	50 J	772989	6479517	100
<i>Acacia asepala</i> (P2)	50 J	773055	6479376	1
<i>Acacia asepala</i> (P2)	50 J	773058	6479368	1
<i>Acacia asepala</i> (P2)	50 J	773382	6478739	4
<i>Acacia asepala</i> (P2)	50 J	764668	6492322	1
<i>Bossiaea celata</i> (P3)	50 J	773063.71	6477645.83	10
<i>Bossiaea celata</i> (P3)	50 J	773127.56	6478197.92	10
<i>Bossiaea celata</i> (P3)	50 J	773349.6	6478207.56	100
<i>Bossiaea celata</i> (P3)	50 J	773370.02	6478191.15	100
<i>Bossiaea celata</i> (P3)	50 J	773379.76	6478186.78	100
<i>Bossiaea celata</i> (P3)	50 J	773432.14	6478199.93	10
<i>Bossiaea celata</i> (P3)	50 J	773469.4	6478196.61	100
<i>Bossiaea celata</i> (P3)	50 J	773525.13	6478207.34	100
<i>Bossiaea celata</i> (P3)	50 J	773667.85	6478217.19	1
<i>Bossiaea celata</i> (P3)	50 J	773753.7	6478180.83	2
<i>Bossiaea celata</i> (P3)	50 J	773199.34	6478192.02	2
<i>Bossiaea celata</i> (P3)	50 J	773137.83	6478181.56	10
<i>Bossiaea celata</i> (P3)	50 J	773375.51	6478169.7	12
<i>Bossiaea celata</i> (P3)	50 J	773386.53	6478174.17	10
<i>Bossiaea celata</i> (P3)	50 J	773406.33	6478173.98	20
<i>Bossiaea celata</i> (P3)	50 J	773423.42	6478178.41	20

Taxon	Zone	Easting	Northing	No. Plants
<i>Bossiaea celata</i> (P3)	50 J	773440.54	6478169.96	100
<i>Bossiaea celata</i> (P3)	50 J	773493.8	6478166.33	20
<i>Bossiaea celata</i> (P3)	50 J	773521.06	6478168.49	50
<i>Bossiaea celata</i> (P3)	50 J	773547.42	6478179.44	10
<i>Bossiaea celata</i> (P3)	50 J	773560.9	6478176.86	25
<i>Bossiaea celata</i> (P3)	50 J	773622.53	6478191.65	3
<i>Bossiaea celata</i> (P3)	50 J	773627.37	6478188.3	3
<i>Bossiaea celata</i> (P3)	50 J	773635	6478186.77	6
<i>Bossiaea celata</i> (P3)	50 J	773642.98	6478187.22	10
<i>Bossiaea celata</i> (P3)	50 J	773657.73	6478193.04	10
<i>Bossiaea celata</i> (P3)	50 J	773672.19	6478195.1	10
<i>Bossiaea celata</i> (P3)	50 J	773703.83	6478187.27	10
<i>Bossiaea celata</i> (P3)	50 J	773726.24	6478171.13	3
<i>Bossiaea celata</i> (P3)	50 J	771199	6478013	1
<i>Bossiaea celata</i> (P3)	50 J	771334	6478585	1
<i>Bossiaea celata</i> (P3)	50 J	771344	6478823	1
<i>Bossiaea celata</i> (P3)	50 J	771350	6478848	1
<i>Bossiaea celata</i> (P3)	50 J	771356	6478873	1
<i>Bossiaea celata</i> (P3)	50 J	766398	6464621	1
<i>Bossiaea celata</i> (P3)	50 J	772307	6479934	20
<i>Bossiaea celata</i> (P3)	50 J	772414	6479892	1
<i>Bossiaea celata</i> (P3)	50 J	772556	6479837	1
<i>Bossiaea celata</i> (P3)	50 J	773518	6478465	4
<i>Bossiaea celata</i> (P3)	50 J	773516	6478460	1
<i>Bossiaea celata</i> (P3)	50 J	773521	6478448	13
<i>Bossiaea celata</i> (P3)	50 J	773539	6478438	14
<i>Bossiaea celata</i> (P3)	50 J	773544	6478441	10
<i>Bossiaea celata</i> (P3)	50 J	773541	6478424	25
<i>Bossiaea celata</i> (P3)	50 J	773545	6478406	28
<i>Bossiaea celata</i> (P3)	50 J	773547	6478401	3
<i>Bossiaea celata</i> (P3)	50 J	773564	6478397	13
<i>Bossiaea celata</i> (P3)	50 J	773563	6478387	6
<i>Bossiaea celata</i> (P3)	50 J	773563	6478372	15
<i>Bossiaea celata</i> (P3)	50 J	773574	6478367	3
<i>Bossiaea celata</i> (P3)	50 J	773574	6478363	13
<i>Bossiaea celata</i> (P3)	50 J	773570	6478343	12
<i>Bossiaea celata</i> (P3)	50 J	773571	6478333	2
<i>Bossiaea celata</i> (P3)	50 J	773573	6478322	1
<i>Bossiaea celata</i> (P3)	50 J	773571	6478314	20
<i>Bossiaea celata</i> (P3)	50 J	773566	6478303	4
<i>Bossiaea celata</i> (P3)	50 J	773567	6478293	30
<i>Bossiaea celata</i> (P3)	50 J	773571	6478276	2
<i>Bossiaea celata</i> (P3)	50 J	773571	6478271	10
<i>Bossiaea celata</i> (P3)	50 J	773572	6478252	5
<i>Bossiaea celata</i> (P3)	50 J	773579	6478252	20
<i>Bossiaea celata</i> (P3)	50 J	773579	6478242	4
<i>Bossiaea celata</i> (P3)	50 J	773578	6478233	1
<i>Bossiaea celata</i> (P3)	50 J	773573	6478222	4
<i>Bossiaea celata</i> (P3)	50 J	773566	6478221	10
<i>Bossiaea celata</i> (P3)	50 J	773563	6478213	8

Taxon	Zone	Easting	Northing	No. Plants
<i>Bossiaea celata</i> (P3)	50 J	773568	6478182	15
<i>Bossiaea celata</i> (P3)	50 J	773552	6478168	8
<i>Bossiaea celata</i> (P3)	50 J	773536	6478157	5
<i>Bossiaea celata</i> (P3)	50 J	773497	6478133	14
<i>Bossiaea celata</i> (P3)	50 J	773482	6478136	10
<i>Bossiaea celata</i> (P3)	50 J	773430	6478129	5
<i>Bossiaea celata</i> (P3)	50 J	773400	6478117	2
<i>Bossiaea celata</i> (P3)	50 J	773392	6478103	2
<i>Bossiaea celata</i> (P3)	50 J	773365	6478097	33
<i>Bossiaea flexuosa</i> (P3)	50 J	771739	6478155	5
<i>Bossiaea flexuosa</i> (P3)	50 J	772307	6479981	1
<i>Bossiaea flexuosa</i> (P3)	50 J	767320	6466633	1
<i>Bossiaea flexuosa</i> (P3)	50 J	767298	6466644	1
<i>Caesia viscida</i> (P2)	50 J	771502	6477993	1
<i>Caesia viscida</i> (P2)	50 J	771330	6477611	2
<i>Caesia viscida</i> (P2)	50 J	766597	6464542	1
<i>Chorizema circinale</i> (P3)	50 J	771084	6476984	10
<i>Chorizema circinale</i> (P3)	50 J	771504	6482088	1
<i>Cryptandra crispula</i> (P3)	50 J	765397	6464842	1000
<i>Cryptandra crispula</i> (P3)	50 J	767248	6466679	50
<i>Grevillea prostrata</i> (P4)	50 J	771662	6477847	1
<i>Grevillea prostrata</i> (P4)	50 J	771520	6478033	1
<i>Grevillea prostrata</i> (P4)	50 J	766335	6464642	3
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767510	6465509	1
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767617.72	6465492.33	2
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767469.65	6465494.98	1
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766205	6464071	1000
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766653	6464124	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767039	6464452	200
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767211	6464644	200
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767264	6465637	50
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767325	6465739	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767353	6465791	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767400	6465851	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767220	6494487	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	762958	6463658	50
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	762194	6460988	20
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 H	761459	6455932	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766185	6464706	10
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766306	6464662	4
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766311	6464655	4
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766335	6464642	10
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766337	6464638	2
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766345	6464633	2
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766354	6464629	1
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766398	6464621	3
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766409	6464621	4
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766429	6464611	4
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766467	6464592	3
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766481	6464585	3

Taxon	Zone	Easting	Northing	No. Plants
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766545	6464566	1
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	766550	6464565	1
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767290	6464270	2
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767384	6464403	2
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767558	6465676	4
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	767562	6465697	3
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 H	761188	6455741	50
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	762083	6460990	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	762100	6461053	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	762019	6463671	100
<i>Microcorys</i> sp. Forrestania (V. English 2004) (P4)	50 J	752719	6471761	100
<i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3)	50 J	766653	6464124	100
<i>Stylidium sejunctum</i> (P3)	50 J	762270	6460956	10
<i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)	50 J	767851	6494280	300
<i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)	50 J	766607	6491819	100
<i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)	50 J	769948	6491646	100
<i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3)	50 J	770450	6488186	100
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771084	6476984	10
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771687	6478111	10
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772307	6479981	30
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771310	6477616	30
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771304	6477644	30
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771293	6477674	30
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771288	6477708	30
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771293	6477738	3
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771292	6477779	3
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771293	6477816	3
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771294	6477825	4
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771301	6477945	4
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771301	6477945	5
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771307	6478009	5
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771312	6478122	5
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	771322	6478411	5
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772291	6479941	5
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772338	6479925	10
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772363	6479923	10
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772383	6479907	6
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772387	6479903	8
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772461	6479873	6
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772473	6479863	4
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772542	6479841	3
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772556	6479837	1
<i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)	50 J	772564	6479832	8



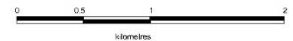
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6,495,000 mN
6,492,500 mN
6,490,000 mN
500 mN

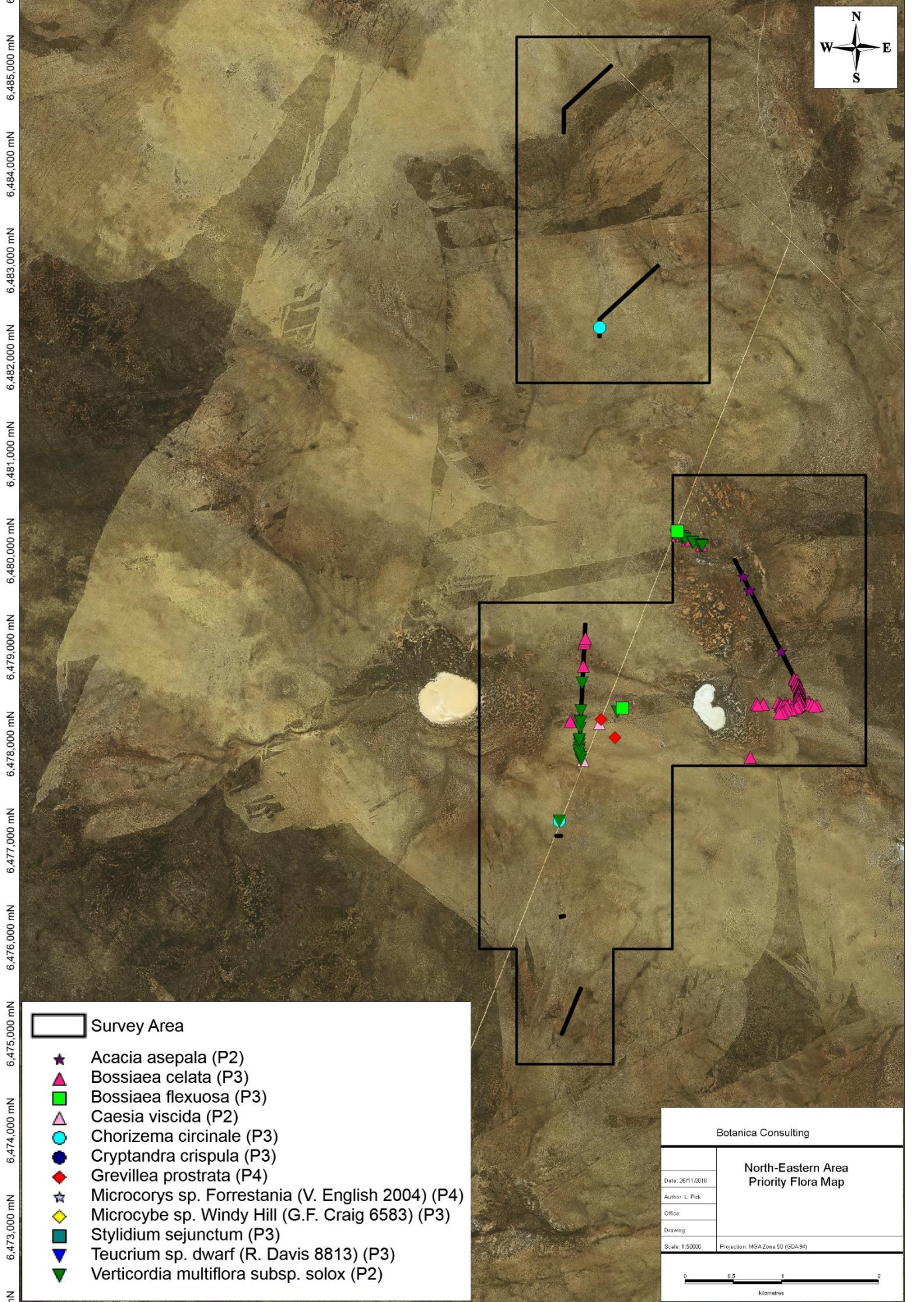


- Survey Area
- ★ *Acacia asepala* (P2)
- ▲ *Bossiaea celata* (P3)
- *Bossiaea flexuosa* (P3)
- ▲ *Caesia viscida* (P2)
- *Chorizema circinale* (P3)
- *Cryptandra crispula* (P3)
- ◆ *Grevillea prostrata* (P4)
- ☆ *Microcorys* sp. *Forrestania* (V. English 2004) (P4)
- ◆ *Microcybe* sp. *Windy Hill* (G.F. Craig 6583) (P3)
- *Stylidium sejunctum* (P3)
- ▼ *Teucrium* sp. *dwarf* (R. Davis 8813) (P3)
- ▼ *Verticordia multiflora* subsp. *solox* (P2)

Botanica Consulting	
Northern Area Priority Flora	
Date: 28/11/2018	
Author: L. Pick	
Office:	
Drawing:	
Scale: 1:55000	Projection: MGA Zone 50 (GDA 94)



766,000 mE 767,000 mE 768,000 mE 769,000 mE 770,000 mE 771,000 mE 772,000 mE 773,000 mE 774,000 mE 775



6,486 mN
6,485,000 mN
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6,483,000 mN
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6,480,000 mN
6,479,000 mN
6,478,000 mN
6,477,000 mN
6,476,000 mN
6,475,000 mN
6,474,000 mN
6,473,000 mN
30 mN



- Survey Area**
- ★ *Acacia asepalata* (P2)
 - ▲ *Bossiaea celata* (P3)
 - *Bossiaea flexuosa* (P3)
 - ▲ *Caesia viscida* (P2)
 - *Chorizema circinale* (P3)
 - *Cryptandra crispula* (P3)
 - ◆ *Grevillea prostrata* (P4)
 - ★ *Microcorys* sp. Forrestania (V. English 2004) (P4)
 - ◆ *Microcybe* sp. Windy Hill (G.F. Craig 6583) (P3)
 - *Stylidium sejunctum* (P3)
 - ▼ *Teucrium* sp. dwarf (R. Davis 8813) (P3)
 - ▼ *Verticordia multiflora* subsp. solox (P2)

Botanica Consulting	
North-Eastern Area Priority Flora Map	
Date: 26/11/2018	
Author: L. Pick	
Office:	
Drawing:	
Scale: 1:50000	Projection: MGA Zone 50 (GDA94)

760,000 mE

762,500 mE

765,000 mE

767,500 mE

770,000 mE

772,500 mE

6,470,000 mN

6,467,500 mN

6,465,000 mN

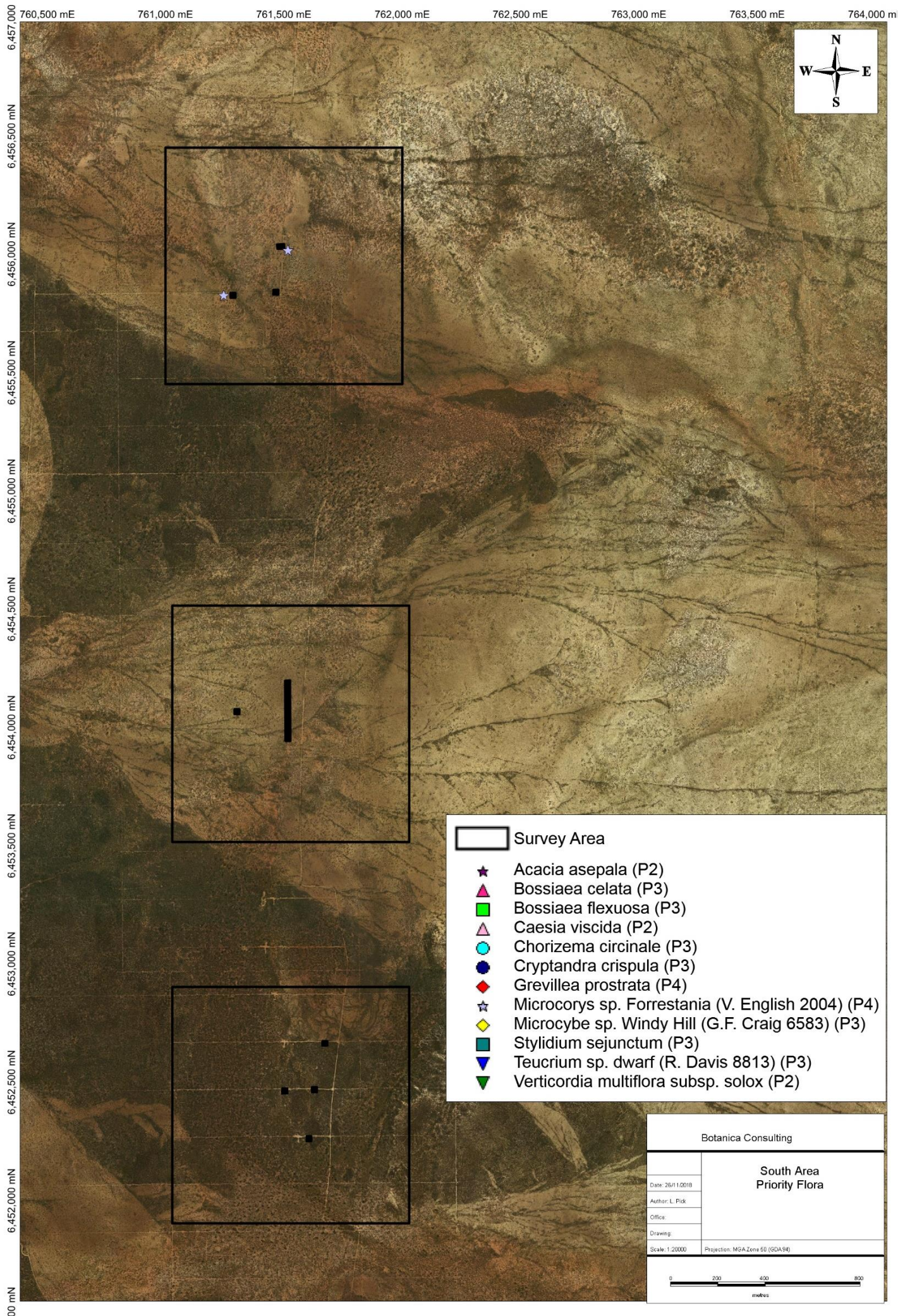
6,462,500 mN



Survey Area

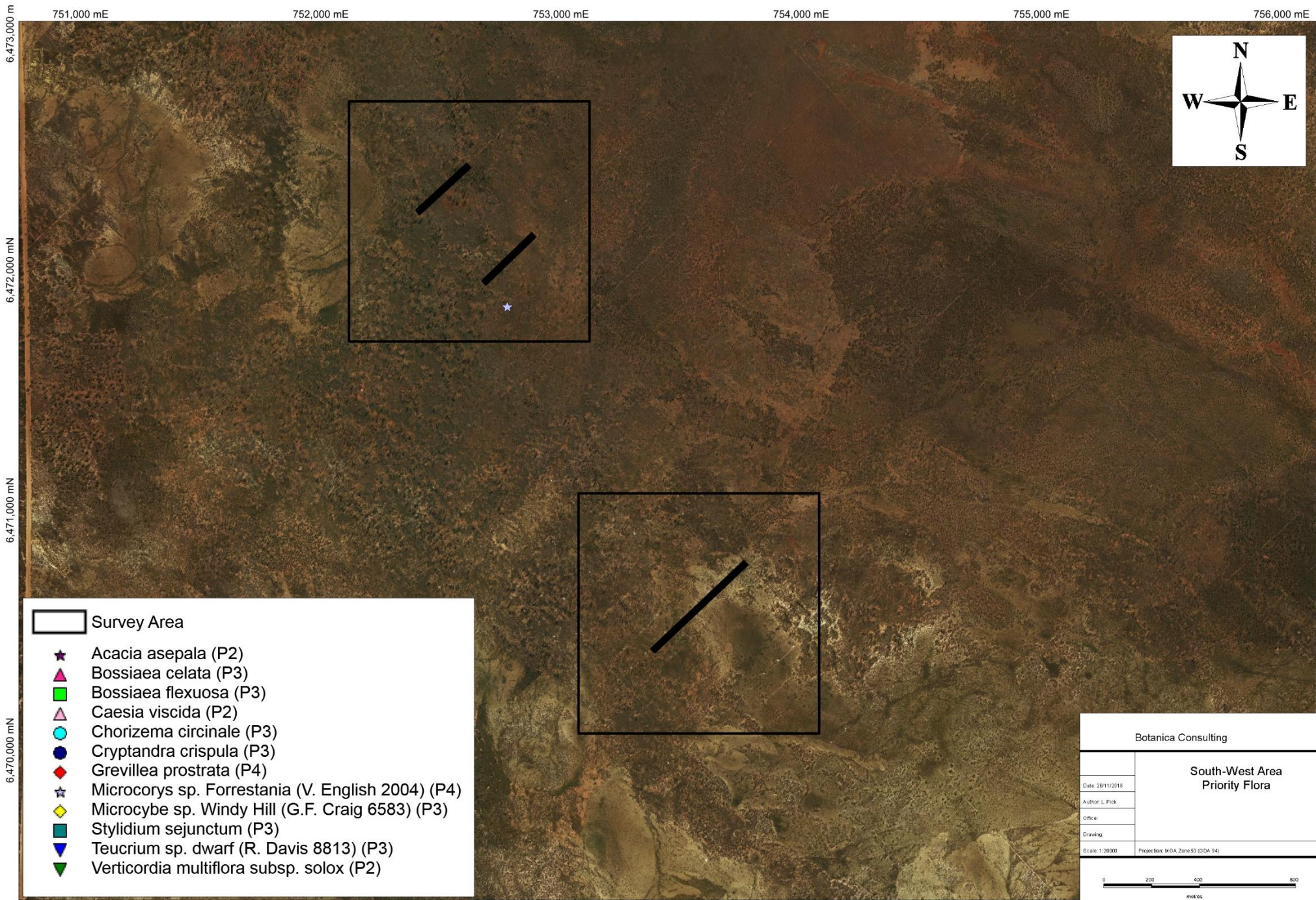
- ★ *Acacia asepala* (P2)
- ▲ *Bossiaea celata* (P3)
- *Bossiaea flexuosa* (P3)
- ▲ *Caesia viscida* (P2)
- *Chorizema circinale* (P3)
- *Cryptandra crispula* (P3)
- ◆ *Grevillea prostrata* (P4)
- ☆ *Microcorys* sp. *Forrestania* (V. English 2004) (P4)
- ◆ *Microcybe* sp. *Windy Hill* (G.F. Craig 6583) (P3)
- *Stylidium sejunctum* (P3)
- ▼ *Teucrium* sp. *dwarf* (R. Davis 8813) (P3)
- ▼ *Verticordia multiflora* subsp. *solox* (P2)

Botanica Consulting	
South-East Area Priority Flora	
Date:	20/11/2019
Author:	L. Pick
Office:	
Drawing:	
Scale:	1:55000
Projection:	MGA Zone 58 (GDA 94)



- Survey Area
- ★ *Acacia asepala* (P2)
- ▲ *Bossiaea celata* (P3)
- *Bossiaea flexuosa* (P3)
- △ *Caesia viscida* (P2)
- *Chorizema circinale* (P3)
- *Cryptandra crispula* (P3)
- ◆ *Grevillea prostrata* (P4)
- ☆ *Microcorys* sp. *Forrestania* (V. English 2004) (P4)
- ◆ *Microcybe* sp. *Windy Hill* (G.F. Craig 6583) (P3)
- *Stylidium sejunctum* (P3)
- ▼ *Teucrium* sp. *dwarf* (R. Davis 8813) (P3)
- ▼ *Verticordia multiflora* subsp. *solox* (P2)

Botanica Consulting	
South Area Priority Flora	
Date: 26/11/2018	
Author: L. Pick	
Office:	
Drawing:	
Scale: 1:20000	Projection: MSA Zone 56 (GDA94)



751,000 mE 752,000 mE 753,000 mE 754,000 mE 755,000 mE 756,000 mE

6,473,000 m

6,472,000 mN

6,471,000 mN

6,470,000 mN



- | | |
|---|--|
| | Survey Area |
| ★ | <i>Acacia asepala</i> (P2) |
| ▲ | <i>Bossiaea celata</i> (P3) |
| ■ | <i>Bossiaea flexuosa</i> (P3) |
| △ | <i>Caesia viscida</i> (P2) |
| ● | <i>Chorizema circinale</i> (P3) |
| ● | <i>Cryptandra crispula</i> (P3) |
| ◆ | <i>Grevillea prostrata</i> (P4) |
| ☆ | <i>Microcorys</i> sp. Forresteria (V. English 2004) (P4) |
| ◆ | <i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3) |
| ■ | <i>Stylidium sejunctum</i> (P3) |
| ▼ | <i>Teucrium</i> sp. dwarf (R. Davis 8813) (P3) |
| ▼ | <i>Verticordia multiflora</i> subsp. <i>solox</i> (P2) |

Botanica Consulting	
South-West Area Priority Flora	
Date: 26/11/2018	
Author: L. Pick	
Office:	
Drawing:	
Scale: 1:20000	Projection: MGA Zone50 (GDA 94)

Appendix 5: Quadrat Locations

Quadrat	Vegetation Code	Zone	Easting	Northing	Elevation
Q1	CLP-EW1	50 J	765366	6464597	395 m
Q2	CLP-EW1	50 J	767286	6464646	393 m
Q3	SP-H1	50 J	767284	6466335	398 m
Q4	SLP-MWS1	50 J	767248	6466679	399 m
Q5	SP-H1	50 J	767719	6468245	406 m
Q6	SLP-MWS1	50 J	768249	6469587	415 m
Q7	SLP-MWS1	50 J	770784	6474934	443 m
Q8	SLP-MWS1	50 J	771739	6478155	418 m
Q9	SP-H2	50 J	772307	6479981	444 m
Q10	SP-H2	50 J	772572	6480526	432 m
Q11	CLP-EW1	50 J	762325	6496405	410 m
Q12	SP-H2	50 J	762506	6496558	416 m
Q13	SP-H1	50 J	771439	6484972	442 m
Q14	CLP-EW1	50 J	768478	6489570	435 m
Q15	SLP-MWS1	50 J	765203	6491310	407 m
Q16	SLP-MWS1	50 H	761615	6452375	414 m
Q17	SLP-MWS1	50 H	761503	6454146	416 m
Q18	SLP-MWS1	50 H	761459	6455932	424 m
Q19	CLP-EW1	50 J	762194	6460988	426 m
Q20	SLP-MWS1	50 J	761668	6462262	432 m
Q21	CLP-EW1	50 J	762958	6463658	422 m
Q22	CLP-EW1	50 J	761533	6463627	413 m
Q23	SLP-MWS1	50 J	752335	6472129	407 m
Q24	CLP-EW1	50 J	753442	6470393	411 m

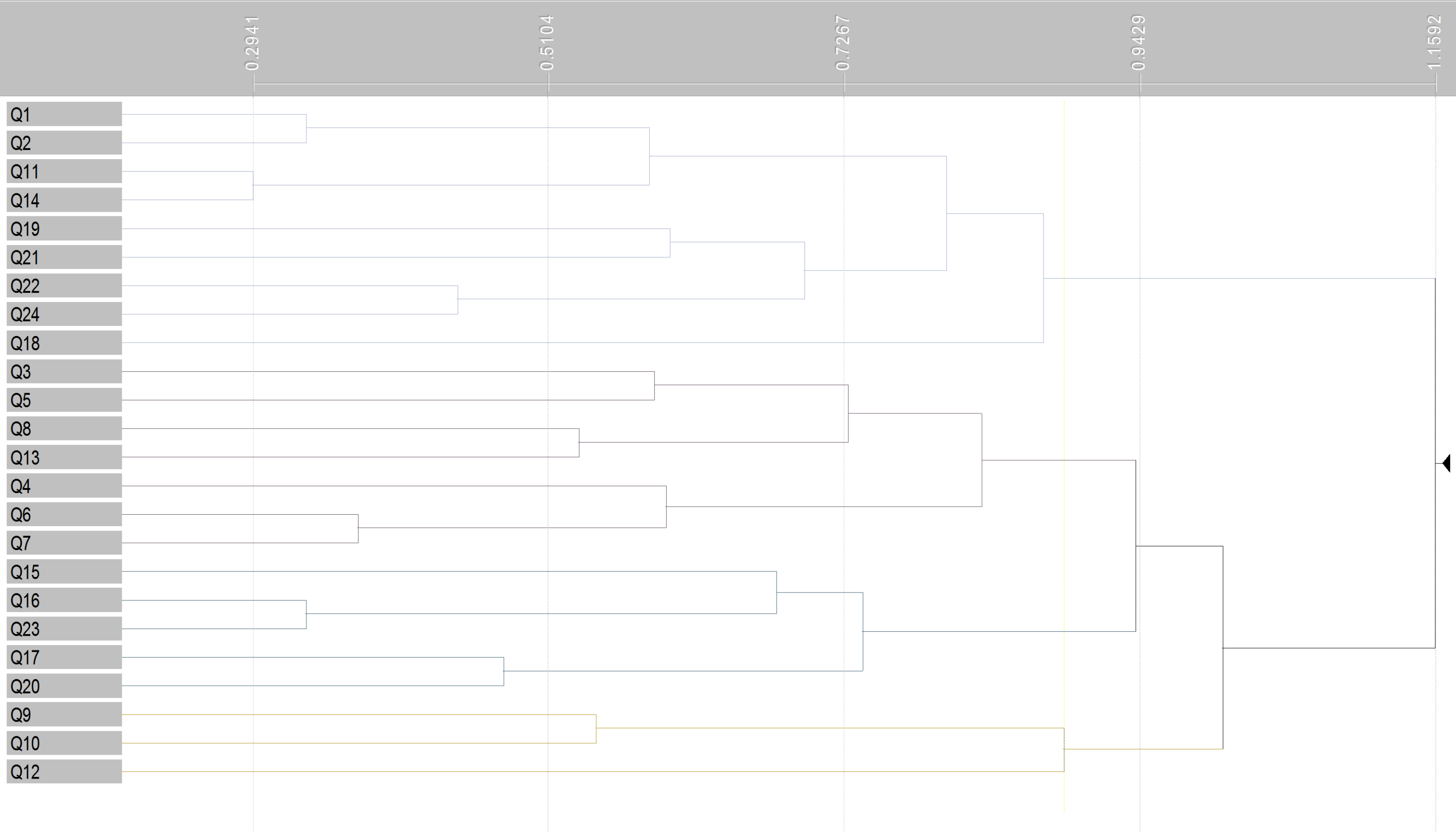
Appendix 6: Quadrat Datasheets

Provided as a separate document

Appendix 7: Quadrat Photographs

Provided as a separate document

Row Fusion Dendrogram

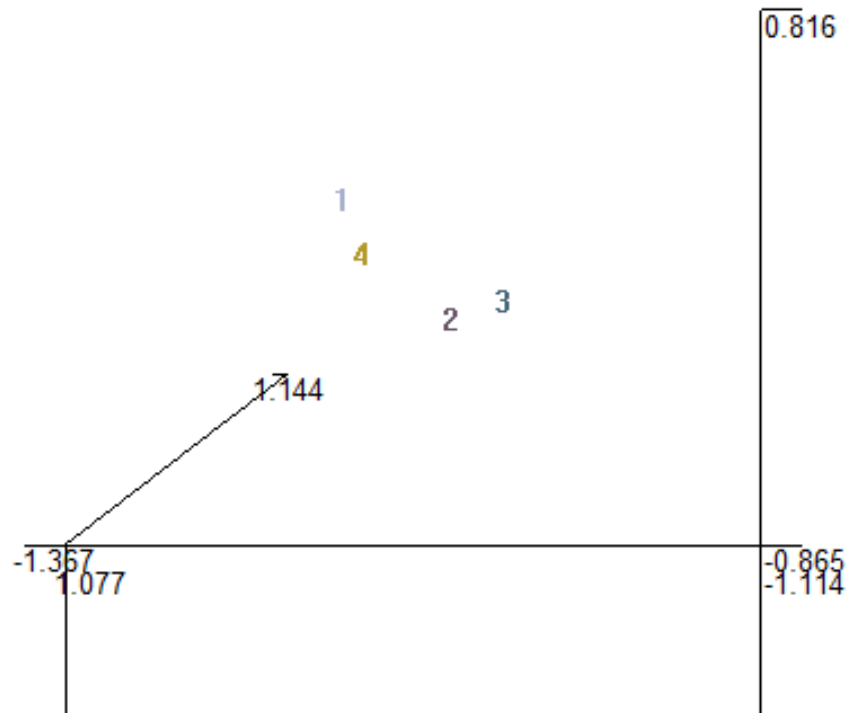


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LEGEND

- Group 1
- Group 2
- Group 3
- Group 4

PATN groups





Appendix 2. Memorandum: Targeted Flora/Vegetation and Fauna survey – Parker Dome Program of Work



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33 Brewer Street, Perth WA 6000
ABN 47141175297

Andrew van Bentum
Exploration Superintendent
Forrestania Nickel Operations
Western Areas Limited
avanbentum@westernareas.com.au
Reference: 2021/94

January 22nd 2022

Memorandum: Targeted Flora/Vegetation and Fauna survey - Parker Dome Program of Work

Botanica Consulting Pty Ltd (Botanica) was commissioned by Western Areas Limited (WSA) to undertake a reconnaissance and targeted flora/vegetation and fauna survey to identify conservation significant flora, fauna and vegetation within the Parker Dome Exploration Program (referred to as "survey area") within the Jilbadji Nature Reserve. The findings of the survey will be used to support a Program of Works application for conducting exploration activities within the Jilbadji Nature Reserve.

The survey area is located approximately 62 km south-east of Southern Cross and 75 km north of the Cosmic Boy Village (Figure 1). The survey consisted broadly of nine separate access tracks within tenements E 77/2261, E 77/2235, E 77/1581, E 77/1734, P 77/4478, P 77/4479, E 77/2440 and E 77/2228 (Figure 2). The survey covered an area of approximately 77.7 ha including 38.6 ha of existing cleared tracks and 45.7 ha of proposed tracks (tracks surveyed to a width of approximately 40m). Majority of the tracks were accessed via existing cleared tracks. Fieldwork was conducted from the 24th and 25th of September 2021 by two Botanica personnel; Jim Williams (Diploma of Horticulture) and Michelle Luinstra (BSc Biology). An additional survey track within the Sirius/Hydra group was surveyed on November 11th 2021 to verify the presence of any Priority flora species on an alternate track line. The survey timing was planned to coincide with the flowering period of the majority of native flora. A handheld GPS was used to record the locations of tracks traversed (Appendix 1) and locations of any conservation significant flora/ fauna and vegetation (recorded in GDA 94 format). The survey area was traversed on foot and quad bike.

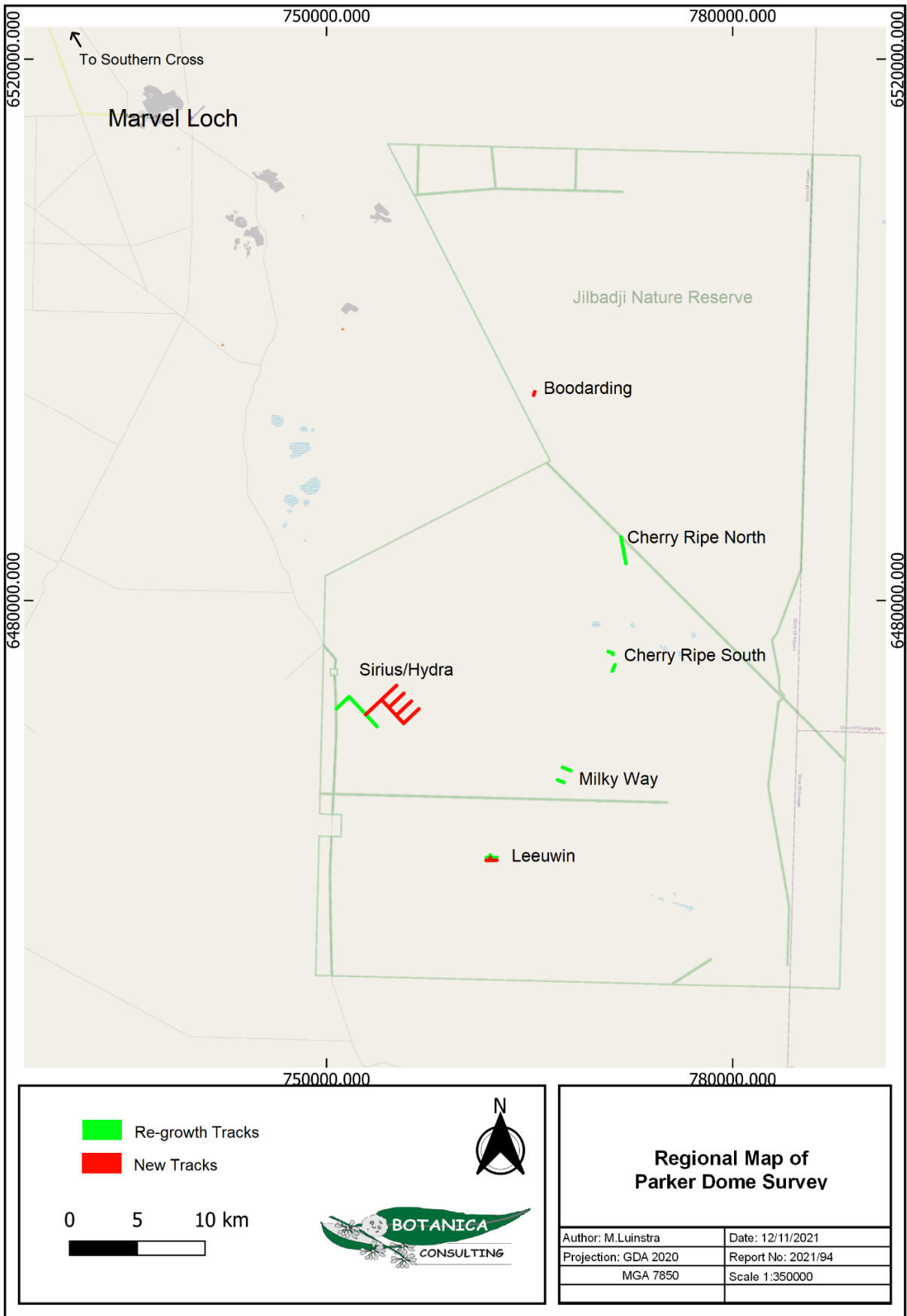


Figure 1: Regional Map of Parker Dome Survey Areas

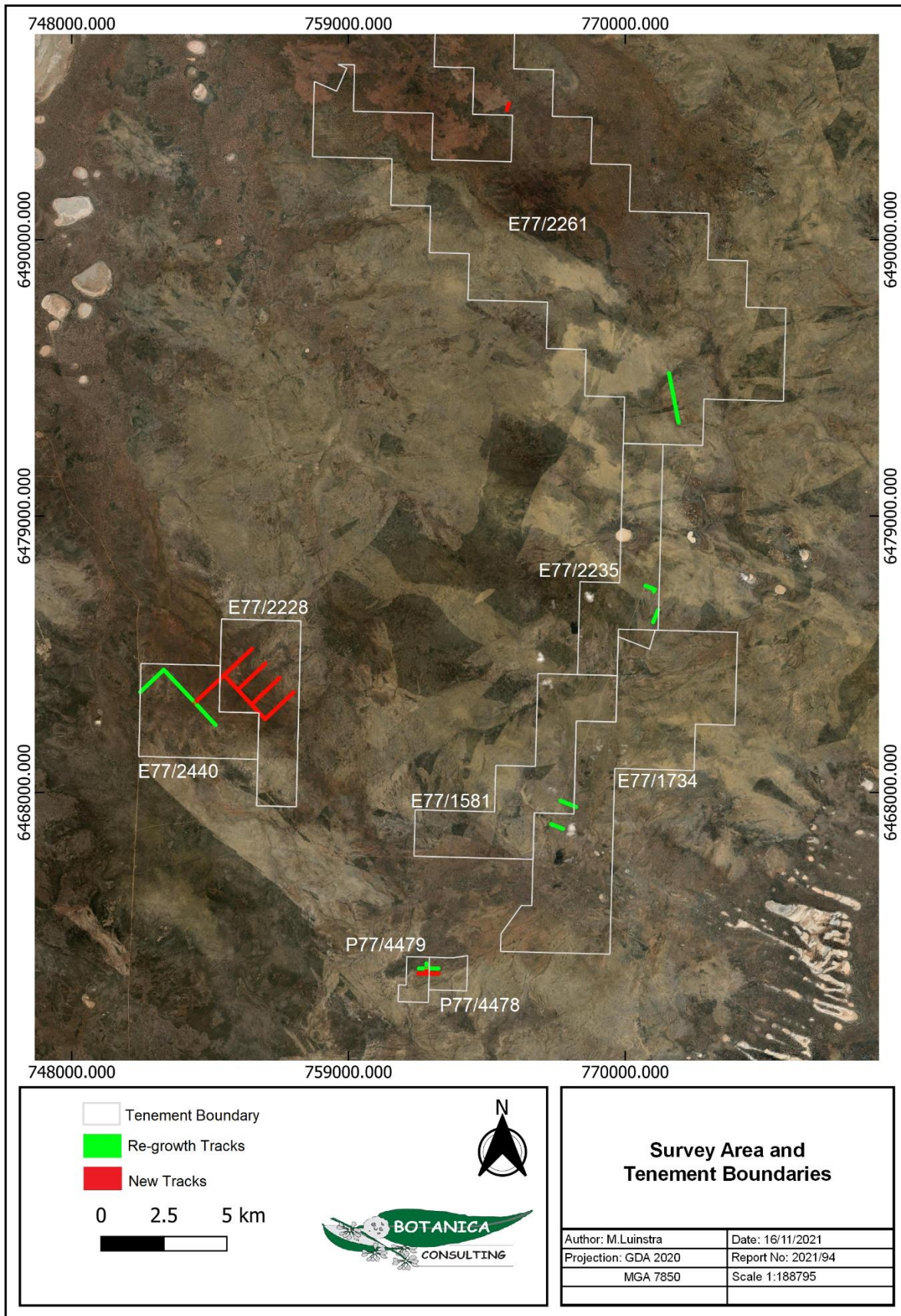


Figure 2: Parker Dome survey area and Tenement Boundaries

1 Background Information

Previous flora/fauna surveys conducted within the local area are summarised in Table 1.

Table 1: Previous Flora and Fauna surveys within the surrounding area

Author & Year	Vegetation/Landforms	Flora/Fauna of Conservation Significance
Newbey and Hnatiuk, 1988	<p>14 vegetation assemblages were identified;</p> <ol style="list-style-type: none"> 1. Mixed Eucalyptus Woodland, 2. <i>Eucalyptus salmonophloia</i> Woodland; 3. <i>Eucalyptus salubris</i> Woodland; 4. <i>Allocasuarina</i> Shrubland; 5. Open Mallee Woodland; 6. <i>Acacia</i> Shrubland; 7. Granite complex; 8. <i>Callitris columellaris</i> Low Woodland; 9. <i>Dodonaea angustissima</i> Tall Shrubland; 10. <i>Tecticornia</i> Low Shrubland; 11. <i>Callitris preissii</i> Tall Shrubland; 12. <i>Grevillea</i> Shrubland; 13. <i>Melaleuca uncinata</i> Tall Shrubland; and 14. <i>Hakea pendula</i> Tall Shrubland. 	<ol style="list-style-type: none"> 1. <i>Banksia sphaerocarpa</i> var. <i>dolichostyla</i> (T)
Gibson and Lyons, 1998	<p>Six communities were recorded within the Parker Range greenstone belt:</p> <p>Community type 1 occupies the sandy soils at the base of ridges and low rises. It is generally dominated by <i>Eucalyptus sheathiana</i> with <i>E. transcontinentalis</i> and/or <i>E. eremophila</i> as co-dominants. The most typical understorey species were <i>Daviesia argillacea</i> and <i>Grevillea huegelii</i>.</p> <p>Community type 2 generally dominated <i>Eucalyptus longicornis</i>. Other eucalypts that occurred as co-dominants included <i>E. corrugata</i> and <i>E. salubris</i>. At one site this community was dominated by <i>E. myriadena</i>. This community occupied the broad flats.</p> <p>Community type 3 also occurred on the broad flats within the greenstone belt. It was usually dominated by <i>Eucalyptus salmonophloia</i> and <i>E. salubris</i>. Typical understorey species of this community include <i>Eremophila oppositifolia</i>, <i>Acacia concolorans</i> ms, <i>Dodonaea stenozyga</i> and <i>Scaevola spinescens</i>.</p> <p>Community type 4 generally dominated by <i>Allocasuarina acutivalvis</i> and <i>Allocasuarina corniculata</i>. At some sites <i>Eucalyptus capillosa</i> subsp <i>polyclada</i> also occurred, but this species was more typical of community type 5. Other species typical of this community type included <i>Baeckea elderiana</i> and <i>Thryptomene kochii</i>, further illustrating the sandy nature of these sites.</p> <p>Community type 5 almost totally lacked <i>Allocasuarina corniculata</i>, being replaced by <i>A. campestris</i>, while <i>Allocasuarina acutivalvis</i> was still a common element. <i>Eucalyptus capillosa</i> subsp <i>polyclada</i> and/or <i>Eucalyptus loxophleba</i> tended to dominate these sites while <i>Hakea pendens</i>, <i>Phebalium tuberculosum</i>, and <i>Westringia cephalantha</i> were common understorey elements. This community type was associated with laterites, breakaways and the massive gossanous caps of the Mt Caudan area.</p> <p>Community type 6 restricted to a small area of a massive decomposing laterite and granite in the Parker Range. The</p>	<ol style="list-style-type: none"> 1. <i>Acacia asepala</i> (P2) 2. <i>Acacia concolorans</i> (P2) 3. <i>Drummondita wilsonii</i> (P1) 4. <i>Rinzia medifila</i> (P1) 5. <i>Gnephosis intonsa</i> (P3) 6. <i>Grevillea phillipsiana</i> (P1) 7. <i>Hakea pendens</i> (P3) 8. <i>Hemigenia obovata</i> (P1)

Author & Year	Vegetation/Landforms	Flora/Fauna of Conservation Significance
	area was dominated by low trees of <i>Callitris glaucophylla</i> and the previously unknown <i>Isopogon robusta</i> ms.	
Recon Environmental, 2007	<p>Ten vegetation communities were identified within the Burbridge survey area. These communities reflect underlying geology, landforms and soils, and can be grouped into six main types following Gibson and Lyons descriptions of the communities of the Parker Ranges:</p> <ol style="list-style-type: none"> 1. Sandy Soils base of ridges/low rises (<i>Eucalyptus sheathiana</i>, <i>E. transcontinentalis</i>, &/or <i>E. eremophila</i> with <i>Daviesia argillacea</i> and <i>Grevillea huegelii</i>. (ESSS) 2. <i>Eucalyptus longicornis</i> (<i>E. corrugata</i> and <i>E. salubris</i>) on broad flats. (ELWF) 3. <i>Eucalyptus salmonophloia</i> and <i>E. salubris</i> with <i>Eremophila oppositifolia</i>, <i>Acacia concolorans</i> (P2), <i>Dodonaea stenozyga</i>, <i>Scaevola spinescens</i> on broad flats. (ESWF) 4. <i>Allocasuarina acutivalvis</i> and <i>A. corniculata</i> (<i>Eucalyptus capillosa</i> ssp. <i>polyclada</i>), over <i>Baeckea elderiana</i> and <i>Thryptomene kochii</i> on deeper sandy soils. (MASS, ASSS, MMSS, DMMS) 5. <i>Allocasuarina acutivalvis</i> and <i>A. campestris</i> with <i>Eucalyptus capillosa</i> ssp. <i>polyclada</i> and <i>E. loxophleba</i>, over <i>Hakea pendens</i> (P2), <i>Phebalium tuberculatum</i>, <i>Westringia cephalantha</i> on skeletal sandy soils. (STAM, VSAM) 6. <i>Callitris glaucophylla</i> woodlands on massive greenstone, species poor. (CWRO) 	<ol style="list-style-type: none"> 1. <i>Acacia dissona</i> var. <i>indoloria</i> (P3) 2. <i>Eremophila caerulea</i> subsp. <i>merrallii</i> (P4) 3. <i>Hakea pendens</i> (P3) 4. <i>Philotheca coateana</i> (P3) 5. <i>Stenanthemum poecilum</i> (P3) 6. <i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)
Botanica Consulting, 2010	<p>Eleven vegetation communities identified within the Mt Caudan survey area:</p> <ol style="list-style-type: none"> 1. Mixed Eucalyptus Woodland; 2. <i>Eucalyptus salmonophloia</i> Woodland; 3. <i>Eucalyptus salubris</i> Woodland; 4. Mallee woodland/<i>Allocasuarina</i> shrubland on Laterite Ridge; 5. <i>Allocasuarina</i> Shrubland; 6. Mallee Heath; 7. Open Mallee Woodland; 8. <i>Allocasuarina</i> thicket; 9. <i>Acacia</i> sp. narrow phyllode and <i>Melaleuca eleuterostachya</i> Shrubland; 10. Burnt Mallee/ <i>Allocasuarina</i> Shrubland; and 11. <i>Eucalyptus transcontinentalis</i> Woodland. 	<ol style="list-style-type: none"> 1. <i>Acacia concolorans</i> (P2) 2. <i>Baeckea grandibracteata</i> subsp. Parker Range (P3) 3. <i>Banksia shanklandiorum</i> (P4) 4. <i>Chamaelucium</i> sp. Parker Range (B.H. Smith 1255) (P1) 5. <i>Cryptandra crispula</i> (P3) 6. <i>Hakea pendens</i> (P3) 7. <i>Isopogon robustus</i> (T) 8. <i>Lepidosperma</i> sp. Mt Caudan (N. Gibson & M. Lyons 2081) (P1) 9. <i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094) (P1)
RPS, 2012	<p>Three broad vegetation types affiliated with three landforms occurring within the project area:</p> <ol style="list-style-type: none"> 1. flat plains consisting of sandy soils; 2. red loamy clay plains and gentle slopes; and 3. lower slopes with red clays. 	<ol style="list-style-type: none"> 1. <i>Rinzia medifila</i> (P1)
MWH, 2014	<p>Eleven vegetation communities were recorded across the Survey Area:</p> <ol style="list-style-type: none"> 1. Mid Open Mallee Woodland to Scattered Mallees of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> (+/- scattered <i>E. ? eremophila</i>) over a Mid to Tall Open Shrubland of <i>Allocasuarina acutivalvis</i> subsp. <i>prinsepiana</i>, <i>Santalum acuminatum</i> and <i>Acacia assimilis</i> subsp. <i>assimilis</i> over a Mid to Low Open Shrubland of <i>Isopogon gardneri</i> and <i>Melaleuca cordata</i> (+/- <i>Grevillea acacioides</i>, <i>Thryptomene kochii</i> and <i>Stenanthemum stipulosum</i>) occasionally over a 	<ol style="list-style-type: none"> 1. <i>Rinzia medifila</i> (P1) 2. <i>Eutaxia lasiocalyx</i> (P2) 3. <i>Hemigenia</i> sp. Newdegate (E. Bishop 75) (P1) 4. <i>Calamphoreus inflatus</i> (P4)

Author & Year	Vegetation/Landforms	Flora/Fauna of Conservation Significance
	<p>sparse sedgeland of <i>Lepidosperma sanguinolentum</i> on low hills and minor laterite ridges</p> <ol style="list-style-type: none"> <li data-bbox="423 275 1040 489">2. Rehabilitated areas consisting of a Tall Shrubland to Open Shrubland of <i>Hakea francisiana</i>, <i>Acacia yorkrakinensis</i> subsp. <i>acrita</i> and <i>Allocasuarina campestris</i> over a Mid Sparse Shrubland of <i>Isopogon gardneri</i> and <i>Thryptomene kochii</i> over a Low Sparse Shrubland of <i>Westringia cephalantha</i> var. <i>cephalantha</i> and <i>Stenanthemum stipulosum</i> on low rocky hills <li data-bbox="423 495 1040 680">3. Open Woodland of <i>Eucalyptus? longicornis</i> over a Mid to Tall Sparse Shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> with Scattered <i>Santalum acuminatum</i> over a Low Open Shrubland of <i>Daviesia argillacea</i>, <i>Acacia hemiteles</i> and <i>Exocarpos aphyllus</i> over isolated tussocks of <i>Austrostipa pycnostachya</i> on sandy loam flats <li data-bbox="423 686 1040 871">4. Low to Mid Open Woodland to Woodland of <i>Eucalyptus? eremophila</i> over a Mid Sparse Shrubland to Shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i> over a Mid to Low Shrubland to Sparse Shrubland of <i>Acacia merrallii</i>, <i>Dodonaea stenozyga</i> and <i>Daviesia argillacea</i> on loam flats and gentle slopes, many of which are in recovery from recent fire <li data-bbox="423 877 1040 1014">5. Open Mallee Woodland of <i>Eucalyptus? eremophila</i> over a Mid Open shrubland of <i>Melaleuca pauperiflora</i> subsp. <i>fastigiata</i>, <i>Daviesia argillacea</i> and <i>Acacia merrallii</i> over a Low Shrubland of <i>Acacia erinacea</i> and <i>Dodonaea stenozyga</i> in broad drainage lines <li data-bbox="423 1020 1040 1171">6. Mid to Low Open Shrubland of <i>Acacia merrallii</i> and <i>Daviesia argillacea</i> over a Low Open Shrubland of <i>Exocarpos aphyllus</i>, <i>Eutaxia lasiocalyx</i> and <i>Sclerolaena diacantha</i> over a Sparse Forbland of <i>Angianthus tomentosus</i> and <i>Asteridea athrixoides</i> on gritty loam flats <li data-bbox="423 1178 1040 1314">7. Open Woodland of <i>Eucalyptus urna</i> over a Mid Mallee Woodland of <i>Eucalyptus sheathiana</i> over a Mid Open Shrubland of <i>Daviesia argillacea</i> and <i>Acacia hemiteles</i> over a Sparse Low Shrubland of <i>Acacia merrallii</i> on low hills <li data-bbox="423 1320 1040 1472">8. Mid Mallee Woodland of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> over a Mid Sparse Shrubland of <i>Acacia steedmanii</i>, <i>Callitris? canescens</i>, and <i>Melaleuca hamata</i> over a Low Sparse Shrubland of <i>Westringia cephalantha</i> var. <i>cephalantha</i> and <i>Gastrolobium parviflorum</i> on gently sloping white sand plain <li data-bbox="423 1478 1040 1614">9. Mid Open Shrubland of <i>Acacia assimilis</i> subsp. <i>assimilis</i>, <i>Isopogon gardneri</i> and <i>Melaleuca cordata</i> over a Low Sparse Shrubland of mixed species including <i>Callitris? canescens</i> and <i>Gastrolobium crassifolium</i> on sandy clay sloping plains <li data-bbox="423 1621 1040 1835">10. Scattered mallees of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> and <i>Eucalyptus? eremophila</i> over a Mid Sparse Shrubland of <i>Melaleuca hamata</i> and <i>Acacia acoma</i> over a Low Mixed Shrubland mostly dominated by <i>Grevillea obliquistigma</i> subsp. <i>obliquistigma</i>, <i>Acacia acanthaster</i> and <i>Stenanthemum stipulosum</i> over a Sparse Sedgeland of <i>Lepidosperma sanguinolentum</i> on a low rocky hills <li data-bbox="423 1841 1040 1913">11. Mid Open Mallee Woodland of <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> over a Mid Open Shrubland of <i>Acacia steedmanii</i> and <i>Acacia assimilis</i> subsp. 	

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	<i>assimilis</i> over a Low Sparse Shrubland of <i>Grevillea paradoxa</i> on gravelly low hills	
Botanica (2016a)	<p>Five vegetation types were identified within the survey area;</p> <ol style="list-style-type: none"> 1. Low Woodland of mixed Eucalypts over open scrub of <i>Exocarpos aphyllus</i>/ <i>Melaleuca pauperiflora</i>/ <i>Santalum acuminatum</i> and open dwarf scrub of <i>Acacia deficiens</i>/ <i>Scaevola spinescens</i> on clay-loam plain/ low slope 2. Low Woodland of <i>Eucalyptus salubris</i> over scrub of <i>Melaleuca pauperiflora</i>/ <i>Santalum acuminatum</i> over open dwarf scrub of <i>Scaevola spinescens</i> on clay-loam plain/ low slope 3. Tree Mallee of <i>Eucalyptus gracilis</i> over heath of <i>Beyeria brevifolia</i> and open dwarf scrub of <i>Acacia erinacea</i>/ <i>A. merrallii</i> on clay-loam plain/ low slope 4. Low Woodland of <i>Eucalyptus vittadia</i> over open low scrub of <i>Beyeria brevifolia</i>/ <i>Phebalium</i> spp. and open low sedge of <i>Lepidosperma sanguinolentum</i> on rocky hillslope 5. Open Tree Mallee of <i>Eucalyptus loxophleba</i> subsp. <i>lissophloia</i> over scrub of <i>Melaleuca pauperiflora</i> and open dwarf scrub of <i>Westringia cephalantha</i> on rocky hillslope 	None
Botanica (2016b)	<p>Five vegetation types were identified within the survey area:</p> <ol style="list-style-type: none"> 1. Regrowth Open Low Woodland of <i>Eucalyptus salmonophloia</i>/ <i>E. salubris</i>/ <i>E. urna</i> over scrub of <i>Melaleuca pauperiflora</i> subsp. <i>pauperiflora</i> and Mixed Low Scrub on clay-loam plain 2. Low forest of <i>Eucalyptus longicornis</i> over scrub of <i>Melaleuca pauperiflora</i> subsp. <i>pauperiflora</i> and Mixed Low Scrub on rocky plain/ basalt rise 3. Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. tenera</i> over heath of <i>Allocasuarina campestris</i> and Mixed Low Scrub on laterite rise 4. Very Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. cylindriflora</i> over heath of <i>Allocasuarina acutivalvis</i>/ <i>A. corniculata</i>/ <i>Acacia yorkkrakinensis</i> and Mixed Low Heath on rocky plain/ laterite rise 5. Open Shrub Mallee of <i>Eucalyptus livida</i>/ <i>E. tenera</i> over low scrub of <i>Acacia yorkkrakinensis</i>/ <i>Melaleuca hamata</i> and Mixed Low Heath on rocky plain/ laterite rise 	<ol style="list-style-type: none"> 1. <i>Rinzia medifila</i> (P1) 2. <i>Eutaxia ?lasiocalyx</i> (P2) 3. <i>Hemigenia</i> sp. Newdegate (E. Bishop 75) (P1) 4. <i>Teucrium diabolicum</i> (P3)
PEK Enviro (2016)	<p>Seventeen vegetation types were identified within the survey area:</p> <ol style="list-style-type: none"> 1. <i>Acacia lasiocalyx</i> Tall Open Shrubland 2. <i>Allocasuarina huegeliana</i> Low Open Forest 3. <i>Borya constricta</i> and <i>Actinobole uliginosum</i> Low Open Forbland 4. <i>Eucalyptus burracoppinensis</i> Low Open Mallee shrubland with <i>Grevillea excelsior</i> Tall Open Heathland 5. Mixed Shrubland 6. <i>Acacia yorkkrakinensis</i> subsp. <i>acrita</i> Mid Heathland 7. <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> and <i>E. calycogona</i> subsp. <i>calycogona</i> Low Tree Mallee 8. Mixed <i>Acacia</i> and <i>Melaleuca</i> Low Shrubland 9. <i>Eucalyptus capillosa</i> subsp. <i>polyclada</i> low Tree Mallee 10. <i>Acacia lasiocalyx</i> Tall Open Shrubland with <i>Eucalyptus burracoppinensis</i> Low Open Mallee Shrubland 	<ol style="list-style-type: none"> 1. <i>Acacia asepala</i> (P2) 2. <i>Acacia dissona</i> var. <i>indoloria</i> (P3) 3. <i>Banksia xylothemelia</i> (P3) 4. <i>Bossiaea celata</i> (P3) 5. <i>Caesia viscida</i> P2) 6. <i>Chorizema circinale</i> (P3) 7. <i>Cryptandra crispula</i> (P3) 8. <i>Hibbertia glabriuscula</i> (P3) 9. <i>Microcorys</i> sp. Forrestania (V. English, 2004) (P4)

Author & Year	Vegetation/Landforms	Flora/Fauna of Conservation Significance
	11. <i>Allocasuarina acutivalvis</i> subsp. <i>acutivalvis</i> mid sparse heathland with <i>Eucalyptus burracoppinensis</i> Low Sparse Mallee Shrubland 12. <i>Eucalyptus olivina</i> Low Mallee Shrubland 13. <i>Eucalyptus longicornis</i> Mid Woodland 14. <i>Eucalyptus salmonophloia</i> Mid Woodland 15. <i>Eucalyptus ?transcontinentalis</i> Low Open Forest with <i>Eucalyptus</i> sp. regrowth Mid Mallee Shrubland 16. <i>Eucalyptus flocktoniae</i> subsp. <i>flocktoniae</i> Low Woodland 17. <i>Eucalyptus horistes</i> Low Open Mallee Shrubland	
Botanica (2017)	N/A	1. <i>Acacia asepala</i> (P2) 2. <i>Banksia xylothemelia</i> (P3) 3. <i>Microcorys</i> sp. Forresteria (V. English 2004) (P4) 4. <i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3)
Australasian Ecological Services (2018)	Level 1 and Targeted Fauna survey of drill tracks in the Jilbadji Nature Reserve. Fauna habitat of “ <i>Eucalyptus</i> woodland over mallee, or small mallet, over shrubland” identified as potentially significant for for Red-tailed Phascogale (<i>Phascogale calura</i>). Nine Malleefowl (<i>Leipoa ocellata</i>) mounds were identified during the survey. No Priority or Threatened flora were directly identified during the survey.	Conservation Significant species identified as possible to occur within the Jilbadji Nature Reserve survey area: 1. Malleefowl (<i>Leipoa ocellata</i>) 2. Red-tailed Phascogale (<i>Phascogale calura</i>) 3. Chuditch (<i>Dasyurus geoffroii</i>) 4. Carnaby’s Black Cockatoo (<i>Calyptorhynchus latirostris</i>) 5. Lake Cronin Snake (<i>Paroplocephalus atriceps</i>) 6. Western Brush Wallaby (<i>Macropus Irma</i>) 7. Peregrine Falcon (<i>Falco peregrinus Macropus</i>) 8. Western Rosella (<i>Platycercus icterotis</i>) 9. Stem-tree Trapdoor Spider (<i>Aganippe castellum</i>)
Botanica (2019)	Four vegetation types were identified within the survey area: 1. Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain 2. Mid Mallee Shrubland of <i>Eucalyptus platycorys</i> / <i>E. pileata</i> on sand-loam plain 3. Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain 4. Mid Heathland of <i>Acacia lasiocalyx</i> / <i>Allocasuarina campestris</i> on sandplain	1. <i>Acacia asepala</i> (P2) 2. <i>Bossiaea celata</i> (P3) 3. <i>Bossiaea flexuosa</i> (P3) 4. <i>Caesia viscida</i> (P2) 5. <i>Chorizema circinale</i> (P3) 6. <i>Cryptandra crispula</i> (P3) 7. <i>Grevillea prostrata</i> (P4) 8. <i>Microcorys</i> sp. Forresteria (V. English 2004) (P4) 9. <i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583) (P3) 10. <i>Stylidium sejunctum</i> (P3) 11. <i>Teucrium diabolicum</i> (P3) 12. <i>Verticordia multiflora</i> subsp. <i>solox</i> (P2)
AECOM (2020)	Detailed Flora and Fauna Assessment (Tenement E77/2244).	1. <i>Acacia lachnocarpa</i> (P1) 2. <i>Acacia undosa</i> (P4)

Author & Year	Vegetation/Landforms	Flora/Fauna of Conservation Significance
	<p>No fauna of Conservation Significance identified during survey.</p> <p>Three vegetation types were identified within the survey area:</p> <ol style="list-style-type: none"> 1. Tall Closed Shrubland with Emergent Eucalypts 2. Mallee Woodland over Scattered Shrubs 3. Open Shrubland on skeletal soils 	<ol style="list-style-type: none"> 3. <i>Grevillea neodissecta</i> (P4) 4. <i>Verticordia stenopetala</i> (P3)

The results of the literature review, combined with a search of the Department of Biodiversity, Conservation and Attractions (DBCA) Flora of Conservation Significance databases (DBCA, 2021) found one Priority species – *Microcorys* sp. Forresteria (V. English 2004) (P4) - occurring within the current Parker Dome survey area. A combined search of the DBCA's Flora of Conservation Significance databases (DBCA, 2021b), NatureMap search and DAWE protected matters identified a total of six Threatened Flora taxa and eighty-six Priority Flora taxa listed as occurring within a 40 km radius of the survey area (Table 2).

Table 2: Threatened/ Priority Flora recorded within 40km of the survey area

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Acacia asepala</i>			P2	Diffuse, much-branched shrub, 0.5-1.5 m high. Fl. yellow, Aug. Red-brown sandy loam. Undulating plains, along drainage lines.
<i>Acacia concolorans</i>			P2	Intricate, sprawling or compact, pungent shrub, 0.1-0.5 m high. Fl. yellow, Jul to Aug. Red/brown loam, clay. Low lateritic hills, flats
<i>Acacia concolorans</i>			P2	Intricate, sprawling or compact, pungent shrub, 0.1-0.5 m high. Fl. yellow, Jul to Aug. Red/brown loam, clay. Low lateritic hills, flats.
<i>Acacia crenulata</i>			P3	Bushy shrub or tree, 0.7-3 m high. Fl. yellow. Clay, sandy clay, yellow sand. Rocky rises, granite outcrops, breakaways.
<i>Acacia cylindrica</i>			P3	Spreading shrub, 1.5-3(-4) m high. Fl. yellow, Aug to Oct. Yellow/brown sand, gravelly soils. Undulating plains, flats.
<i>Acacia dissona</i> var. <i>indoloria</i>			P3	Domed or rounded, dense, pungent shrub, 0.5-2 m high. Fl. yellow, Aug to Sep. Sand, sandy loam. Undulating plains.
<i>Acacia dorsenna</i>			P1	Dense, domed shrub, 1-1.6 m high, to 3 m wide. Fl. yellow, Aug to Sep. Rocky sandy loam or clay loam. Low rocky hills.
<i>Acacia formidabilis</i>			P3	Diffuse, pungent shrub, 0.2-0.6 m high. Fl. yellow, Aug to Sep. Yellow or red/brown sand. Undulating plains, hillsides.
<i>Acacia inophloia</i>			P3	Shrub or tree, 1-4 m high, bark fibrous & stringy. Fl. yellow, Aug to Oct. Yellow sand, gravelly granitic soils.
<i>Acacia kerryana</i>			P2	Low, spreading, domed shrub, 0.3-1 m high. Fl. yellow, Oct to Dec or Jan to Feb. Granitic loamy sand, stony clayey loam or clayey sand. Low stony ridges, undulating plains.
<i>Acacia lachnocarpa</i>			P1	No description available
<i>Acacia lanuginophylla</i>	EN	VU		Dense shrub, 0.5-1.2 m high. Fl. yellow, Jul to Oct. White/grey sand, clayey sand, gravelly soils. Flats, along drainage lines.
<i>Acacia lobulata</i>	EN	EN		Erect, open, often spindly shrub, 1-2 m high. Fl. yellow, Jul. Gritty loam or sand. Low granitic breakaways.
<i>Acacia undosa</i>			P3	Dense, spreading shrub, 0.3-1.5 m high. Fl. yellow, Jul to Sep. Sandy clay loam, clayey sand. Undulating plains, low-lying areas.
<i>Angianthus micropodioides</i>			P3	Erect or decumbent annual, herb, 0.03-0.15 m high. Fl. yellow-white, Nov to Dec or Jan to Feb. Saline sandy soils. River edges, saline depressions, claypans.
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)			P3	No description available
<i>Baeckea</i> sp. Blue Haze Mine (P. Armstrong 06/910)			P1	No description available

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Baeckea</i> sp. Forrestania (K.R. Newbey 1105)			P1	Shrub, to 0.6 m high. Sand. Plains.
<i>Banksia lullfitzii</i>			P3	Lignotuberous shrub, 0.8-2 m high. Fl. yellow-orange/orange-brown, Mar to May. Yellow sand. Sandplains.
<i>Banksia shanklandiorum</i>			P4	Upright, non-lignotuberous shrub, 0.4-2.5 m high, to 3 m wide. Fl. Jun to Aug. White/yellow sand with lateritic gravel.
<i>Banksia sphaerocarpa</i> var. <i>dolichostyla</i>	VU	VU		Lignotuberous shrub, 1-3 m high. Fl. yellow-orange, Mar to May. Lateritic gravel, grey sand.
<i>Banksia xylothemelia</i>			P3	Often sprawling, lignotuberous shrub, to 1 m high, sometimes suckering. Fl. yellow, Sep to Oct. Sandy loam, usually over laterite. Sandplains.
<i>Bossiaea celata</i>			P3	Compact, intricately-branched shrub, to 0.8 m high. Fl. yellow-red-orange, Sep to Oct. Deep sand. Open mallee.
<i>Bossiaea flexuosa</i>			P3	Compact shrub, to 0.6 m high. Fl. yellow-orange-red-brown, Sep to Nov. Deep sandy soil.
<i>Bossiaea saxosa</i>			P1	Erect, intricately-branched shrub, to 1.5 m high. Fl. yellow-cream, Sep to Oct. Stony, red soil. Woodlands.
<i>Brachyloma stenolobum</i>			P1	No description available
<i>Caesia viscida</i>			P2	Rhizomatous and tuberous, tufted perennial, herb, to 0.3 m high. Fl. white, Nov. Aeolian sand. Low dunes.
<i>Calamphoreus inflatus</i>			P4	Erect, spreading shrub, 0.4-1.6 m high, to 2 m wide. Fl. blue-purple/green, Oct to Dec or Feb to Mar. Clay loam with ironstone gravel. Flats, disturbed sites.
<i>Chamelaucium</i> sp. Parker Range (B.H. Smith 1255)			P1	No description available
<i>Chorizema circinale</i>			P3	Prostrate, scrambling, wiry shrub, to 0.4 m high. Fl. yellow & orange & red, Sep to Dec. Yellow sand, sandy clay with gravel. Flats, margin of gravel pit.
<i>Conospermum sigmoideum</i>			P2	Erect shrub, 0.2-0.5 m high. Fl. blue, Aug to Sep. Yellow sand.
<i>Cryptandra crispula</i>			P3	Non-spinescent shrub, 0.25-0.9 m high. Brown sandy clay, yellow loamy sand, red soil, pebbles. Dune ridges, hills, near salt lakes.
<i>Dampiera orchardii</i>			P2	Erect perennial, herb, 0.2-0.4 m high. Sand.
<i>Daviesia newbeyi</i>			P3	Bushy, multi-stemmed, broom-like shrub, 0.25-1.5 m high. Fl. orange/yellow & red, Aug to Oct. Sand or sandy clay over granite. Rocky slopes.
<i>Dicrastylis capitellata</i>			P1	Low spreading shrub, 0.2-0.25 m high. Fl. blue-purple, May. Loamy sand, sandy loam.

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Drummondita wilsonii</i>			P1	Erect shrub, 0.4-1 m high. Fl. red & green & pink, Jun to Aug. Sand with gravel & pebbles.
<i>Eremophila biserrata</i>			P4	Prostrate shrub, to 3 m wide. Fl. green/yellow-green, Sep to Nov or Mar. Sandy or sandy clay soils. Alluvial flats, salt flats & lakes.
<i>Eremophila caerulea</i> subsp. <i>merrallii</i>			P4	Spreading or sprawling shrub, to 0.35 m high, to 0.8 m wide. Fl. blue-purple, Oct to Dec. Sand, clay or loam. Undulating plains.
<i>Eremophila racemosa</i>			P4	Erect shrub, 0.5-1.7 m high. Fl. purple-pink-red/white, Mar or Aug to Dec. Sandy or stony loam, clay loam. Undulating plains, roadsides.
<i>Eremophila veronica</i>			P3	Spreading, erect shrub, 0.5-1 m high. Fl. purple, Apr to May. Stony clay, clay loam. Lateritic breakaways.
<i>Eremophila verticillata</i>	EN	CE		Low spreading shrub, up to 0.8 m high, to 1 m wide. Fl. purple-violet, Nov to Dec. Clay loam, loam over limestone.
<i>Eucalyptus brockwayi</i>			P3	Tree, 5-20 m high, bark smooth. Fl. white-cream, Mar to Jun. Gravelly sandy loam. Low rocky hills & slopes.
<i>Eucalyptus deflexa</i>			P4	(Mallee), 1-3 m high, bark smooth. Fl. pink/cream-white, Mar or May to Oct. Clay loam, sandy loam, white or yellow sand, often with gravel. Flat areas & slight rises.
<i>Eucalyptus exigua</i>			P3	(Mallee), 2-5 m high, bark smooth. Fl. white-cream, Mar. Sandy loam, white sand. Sandplains.
<i>Eucalyptus pterocarpa</i>			P4	Tree, to 15 m high, bark smooth throughout, becoming ribbony, light grey over salmon cream. Red-brown sandy loam, yellow-brown silty loam. Creek edges, rocky slopes.
<i>Eucalyptus websteriana</i> subsp. <i>norsemanica</i>			P1	Spreading mallee, to 3 m high, bark 'minni-ritchi'. Fl. yellow, Sep to Nov. Rocky rises.
<i>Eutaxia lasiocalyx</i>			P2	Low, spreading, multi-stemmed shrub, to 0.15 m high. Fl. yellow, Nov. Red sandy loam, laterite and quartz gravel. Gentle lower slopes.
<i>Eutaxia rubricarina</i>			P3	Straggling shrub, to 0.5 m high. Fl. Orange & yellow & brown, Aug or Oct. Gravelly sand, grey to pinkish-white sandy clay, red loam. Flats, slopes, valley floors, road verges.
<i>Grevillea fulgens</i>			P3	Spreading to straggling, non-lignotuberous shrub, 0.5-2 m high. Fl. red/pink-red, May to Oct or Dec. Gravel over laterite. Hillsides.
<i>Grevillea lissopleura</i>			P1	Erect shrub, 0.5-1.2 m high. Fl. Aug. Stony loam on banded ironstone. On ridges.
<i>Grevillea neodissecta</i>			P4	No description available
<i>Grevillea phillipsiana</i>			P1	Prickly shrub, 0.8-1.5 m high. Fl. red/red & orange, Jul to Sep. Red sand, stony loam. Granite hills.

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Grevillea prostrata</i>			P4	Loose, prostrate shrub, 0.04-0.1 m high, 0.8-1.2 m wide. Fl. cream-white/pink-red, Aug to Dec or Jan. White, grey or yellow sand, gravel. Sandplains.
<i>Hakea pendens</i>			P3	Shrub, 2-3 m high, 2.5-3.1 m wide. Fl. pink-white, Sep. Stony loam. Ironstone ridges.
<i>Hemigenia obovata</i>			P1	Erect shrub, to 0.5 m high. Fl. blue-purple, Oct to Nov. White or black wet sand. Flats.
<i>Hemigenia</i> sp. Newdegate (E. Bishop 75)			P1	Spindly, erect to spreading shrub, 0.2-0.45 m high, to 0.5 m wide. Fl. blue/purple, Sep to Oct. Clay loam. Disturbed sites.
<i>Hibbertia lepidocalyx</i> subsp. <i>tuberculata</i>			P3	Shrub. Yellow-orange loam, ironstone gravel.
<i>Hibbertia pachyphylla</i>			P3	Shrub, to 0.5 m high. Fl. yellow, Sep to Nov. White to yellow sand, brown sandy gravel, gravelly loam, laterite, granite, quartz. Undulating plains, low rises, valley floors.
<i>Lasiopetalum fitzgibbonii</i>			P3	Erect, spreading shrub, 0.3-1.5 m high. Fl. blue-purple-pink, Sep to Nov. Sand, clay loam, lateritic soils. Undulating plains, hills.
<i>Lepidium merrallii</i>			P2	Erect to spreading annual (possibly ephemeral), herb, 0.03-0.15 m high. Clay loam.
<i>Lepidosperma</i> sp. Mt Caudan (N. Gibson & M. Lyons 2081)			P1	No description available
<i>Lepidosperma</i> sp. Parker Range (N. Gibson & M. Lyons 2094)			P1	No description available
<i>Leucopogon validus</i>			P1	Robust, lignotuberous shrub, to about 1.2 m high. Dry, brown, rocky sandy loam, brown-orange sandy clay, gravel, ironstone, sandstone. Low ranges, on and around exposed breakaways.
<i>Logania nanophylla</i>			P2	Low spreading shrub, 0.1-0.25 m high, to 0.5 m wide. Fl. white, Aug. White sand, pebbly calcareous sandy clay. Sand dunes.
<i>Melaleuca grieviana</i>			P1	Compact shrub, to 0.75 m high. Fl. yellow, Jul. Well-drained orange-brown loam, brown clay. Plains, gentle slopes, edge of crop paddocks.
<i>Melaleuca ochroma</i>			P3	No description available.
<i>Microcorys</i> sp. Forrestania (V. English 2004)			P4	Prostrate or erect shrub, 0.35-0.4 m high. Fl. white/purple, Jan or Apr. Yellow sandy clay or red-brown clay. Open woodland or cleared areas.
<i>Microcorys</i> sp. Mt Holland (D. Angus DA 2397)			P1	No description available
<i>Microcybe</i> sp. Windy Hill (G.F. Craig 6583)			P3	No description available.
<i>Micromyrtus papillosa</i>			P1	Erect or low, spreading shrub, 0.4-1.2 m high. Fl. white, Apr or Aug to Oct. Sandy or clay soils, ironstone, granite. Rocky sites, outcrops, on hills from base to summit.

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Myriophyllum petraeum</i>			P4	Aquatic annual, herb, stems 0.15-0.3 m long. Fl. white, Aug to Dec. Strictly confined to ephemeral rock pools on granite outcrops.
<i>Notisia intonsa</i>			P3	Prostrate to ascending annual, herb, 0.01-0.04 m high. Fl. yellow-brown, Sep to Oct. Red/brown clay, stony saline loam.
<i>Orianthera exilis</i>			P2	No description available.
<i>Paragoodia crenulata</i>	CE	VU		No description available.
<i>Phebalium drummondii</i>			P3	Upright shrub, 0.6-1.5 m high. Fl. yellow, Jul to Sep. Gravelly sandy or clayey soils. Flats, roadsides.
<i>Philotheca apiculata</i>			P2	Erect shrub, 0.5-1.5 m high. Fl. white-pink, Aug to Nov. Stony clay loam. Rocky outcrops, hillsides.
<i>Philotheca coateana</i>			P3	Shrub, 0.3-0.5 m high, branchlets glabrous; leaf blades 3-4 mm long; flowers terminal, solitary; petals 7-9 mm long. Fl. white & pink, Aug to Sep. Red sand.
<i>Phlegmatospermum eremaeum</i>			P3	Prostrate to spreading annual, herb, 0.02-0.1(-0.2) m high. Fl. white-cream, Jun or Aug to Oct. Stony loam.
<i>Pityrodia scabra</i> subsp. <i>dendrotricha</i>			P3	Shrubs. Stems, cross section more or less circular. Peltate scales absent. Leaves 5-15 mm long, 2-5 mm wide, opposite, entire, with dendritic hairs, bullate, not viscid. Margins entire. Bracteoles absent. Bracts present. 2.5-4.2. mm long Pedicel present, 1-3 mm long, with glandular, dendritic hairs, peltate scales hairs present. Calyx with five lobes, 2.5-3 mm long, not accrescent, sparsely hairy, with glandular, dendritic hairs, not bullate. Corolla white or cream, 8-10 mm long, Dots or stripes in throat present, with dendritic hairs, not viscid, with four stamens, style 6-7 mm long, filament 1-2 mm long, anthers 0.5-0.7 mm long. Appendage absent. Flowering time March, April, May, June, July, August, September or October.
<i>Prostanthera nanophylla</i>			P3	Shrub, 0.1-1 m high. Fl. blue-purple-white, Aug to Nov. Yellow sand over laterite, rocky loam. Sandplains.
<i>Rinzia medifila</i>			P1	No description available
<i>Rinzia triplex</i>			P3	Straggly, erect shrub, to 1.5 m high. Fl. pink, Jun. Yellow to orange sandy loam with laterite gravel. Gently undulating sandplains, low ridges, road verges.
<i>Roycea pycnophylloides</i>	EN	VU		Perennial, herb, forming densely branched, silvery mats to 1 m wide. Fl. Sep. Sandy soils, clay. Saline flats.
<i>Seringia adenogyna</i>			P3	No description available.
<i>Stenanthemum bremerense</i>			P4	Erect or low and spreading shrub, (0.2-)0.3-0.6(-1.4) m high. Orange-brown sandy loam, orange-red gravelly loam, skeletal red loam, laterite, ironstone. Top or sides of outcrops and breakaways.
<i>Stenanthemum poicilum</i>			P3	Erect or decumbent shrub, 0.15-0.5 m high. Fl. white, May to Jun or Sep to Nov. Red clay or sandy clay, loam.

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description (WAHERB, 2021)
<i>Styloidium sejunctum</i>			P3	Caespitose perennial, herb, 0.25-0.45 m high, Leaves tufted, linear to narrowly oblanceolate, 10-30 cm long, 0.8-4 mm wide, apex acute to mucronate, margin involute, glabrous to scabrous. Membraneous scale leaves present at base of mature leaves. Scape glandular throughout. Inflorescence paniculate. Fl. white/pink-purple, Sep to Nov. Clayey sand or loam, laterite. Outcrops, upper slopes, breakaways. Mallee and Allocasuarina shrubland.
<i>Teucrium diabolicum</i>			P3	Compact, dwarf shrub, 0.1 m high, to 0.1 m wide. Fl. white, Apr. Hills, road verges.
<i>Verticordia mitodes</i>			P3	Spreading shrub, 0.15-0.7 m high. Fl. pink-purple, Oct to Dec or Jan. Yellow sand. Undulating plains.
<i>Verticordia multiflora</i> subsp. <i>solox</i>			P2	Erect to spreading shrub, 0.2-0.6 m high. Fl. yellow, Oct to Dec or Jan. Yellow sand over gravel, sand over granite.
<i>Verticordia stenopetala</i>			P3	Shrub, 0.2-0.6(-1.3) m high. Fl. pink/pink-purple-red, Oct to Dec or Jan. Yellow sand, sometimes with gravel. Undulating plains.
Notes: Conservation Codes; CR-Critically Endangered; EN-Endangered; VU-Vulnerable; P-Priority Listed. Green highlighted species = Previously recorded in survey area (Botanica, 2018) Bolded & Green highlighted species = Previously recorded in survey area & recorded during current survey. Bolded species = recorded during current survey.				

The results of the literature review, NatureMap search (DBCA, 2021) and Protected Matters search (DAWE, 2021a) recorded eight Threatened Fauna, one Other Specially Protected Fauna, one terrestrial Migratory Fauna, multiple Migratory shorebirds and four Priority Fauna as occurring within a 40km radius of the survey area (Table 3).

Table 3: Threatened/Priority Fauna within 40km of the survey area

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description
Carnaby's Black Cockatoo <i>Calyptorhynchus latirostris</i>	EN	EN		Carnaby's cockatoo is endemic to the south-west of WA, ranging from the Kalbarri in the north to Esperance in the south-east, and inland to Coorow, Kellerberrin and Lake Cronin. They are most common in semi-arid parts of the south-west. Carnaby's cockatoo occur in uncleared and remnant areas of woodland, shrubland and kwongan heath dominated by Proteaceous species. They breed in the semiarid and subhumid interior eucalypt woodlands, principally dominated by Salmon Gum Eucalyptus salmonophloia or Wandoo Eucalyptus wandoo. The Avon Wheatbelt bioregion is an important breeding area for the species. After breeding, flocks tend to migrate coastward in search of food, with the Swan Coastal Plain recognised as an important foraging area.
Night Parrot <i>Pezoporus occidentalis</i>	EN	CR		The Night Parrot is an elusive bird species that was once wide spread across the outback of WA, SA, NT and QLD. Few confirmed sightings have been recorded in recent years, several in the Pilbara region of WA, one in the NT and several others in eastern QLD and norther SA. The species lives in <i>Triodia</i> (spinifex) and is primarily active at night, as their name suggests. Feral cats and foxes are likely to have contributed to the decline in populations across Australia.

Taxon	EPBC Act	BC Act	DBCAs Priority Rating	Description
Chuditch <i>Dasyurus geoffroii</i>	VU	VU		Previously occurred throughout arid and semi-arid Australia, but is now restricted to south-west Western Australia. It now currently inhabits a wide range of wooded habitats, including wet and dry sclerophyll, eucalyptus forest (especially Jarrah, <i>Eucalyptus marginata</i>) dry woodlands and mallee remnants.
Grey Falcon <i>Falco hypoleucos</i>	VU	VU		Occurs in arid and semi-arid Australia. The species is mainly found where annual rainfall is less than 500 mm, except when wet years are followed by drought, when the species might become marginally more widespread, although it is essentially confined to the arid and semi-arid zones at all times. The species frequents timbered lowland plains, particularly acacia shrublands that are crossed by tree-lined water courses.
Red-tailed Phascogale <i>Phascogale calura</i>	VU	CD		The red-tailed phascogale occurs in remnant vegetation in the southern wheatbelt of Western Australia, where annual mean rainfall is 400–500 mm. Most of the records are concentrated in an area about 150 km long in a north-south direction from Brookton to Katanning. The red-tailed phascogale is largely confined to woodlands with old-growth hollow-producing eucalypts, particularly Wandoo (<i>Eucalyptus wandoo</i>) and York gum (<i>E. loxophleba</i>), often with associated rock sheoak (<i>Allocasuarina huegeliana</i>), but has also been recorded in shrublands and various mosaics of woodland, shrubland and scrub-heath. It avoids relatively open areas and rocky ridges which are devoid of vegetation. The species prefers long unburnt (more than 50 years) patches.
Plains Rat <i>Pseudomys australis</i>	VU	VU		The Plains Rat used to range across central Australia, however it is now known to inhabit southeastern WA, SA, and the NT with limited records in NSW and VIC. Habitat degradation due to grazing/agricultural development have likely contributed to the species decline, as well as predation by foxes and other feral pests. Though historically the species ranged over a variety of habitats, known populations appear to favor “gibber” stone covered plains.
Bilby <i>Macrotis lagotis</i>	VU	VU		The Bilby once occurred across Australia in arid and semi-arid plains. The distribution of the Bilby known today is limited to northern and central desert regions in WA (and introduced to a sanctuary in QLD). The species prefers arid regions abundant in spinifex and <i>Acacia</i> species. The species is known for digging burrows.
Malleefowl <i>Leipoa ocellata</i>	VU	VU		Occurs in unburned mallee and woodland with abundant litter and low scrub.
Lake Cronin Snake <i>Paroplocephalus atriceps</i>			P3	Eucalyptus woodlands and granite outcrops.
Western Rosella (inland) <i>Platycercus icterotis</i> subsp. <i>xanthogenys</i>			P4	Western Rosellas are found in open eucalypt forest and timbered areas, including cultivated land and orchards. The inland species occurs in drier woodland, with a heath understorey.
Western Brush Wallaby <i>Notamacropus irma</i>			P4	Dry sclerophyll forest and woodland, including mallee areas with grassy understorey and thickets of shrubs.
Tree-stem Trapdoor Spider <i>Aganippe castellum</i>			P4	Prefer habitats in flood-prone depressions and flats that support myrtaceous shrub communities. The burrows of this species are specially designed with an aboveground entrance to withstand occasional sheet flooding.

Taxon	EPBC Act	BC Act	DBCA Priority Rating	Description
Migratory shorebirds (various species)	MI	MI		Migratory shorebirds generally prefer muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh or other low vegetation. This includes lagoons, swamps, lakes and pools near the coast, and dams, waterholes, soaks, bore drains and bore swamps, saltpans and hypersaline salt lakes inland.
Fork-tailed Swift <i>Apus pacificus</i>	MI	MI		Low to very high airspace over varied habitat from rainforest to semi desert.
Peregrine Falcon <i>Falco peregrinus</i>		OS		Diverse from rainforest to arid shrublands, from coastal heath to alpine Mainly about cliffs along coasts, rivers and ranges and about wooded watercourses and lakes. The species utilises the ledges, cliff faces and large hollows/broken spouts of trees for nesting. It will also occasionally use the abandoned nests of other birds of prey.
<p>Notes: Conservation Codes; CR-Critically Endangered; EN-Endangered; VU-Vulnerable; MI-Migratory; CD-Conservation Dependent; OS-Other Specially Protected; P-Priority Listed. Bolded species = recorded during current survey.</p>				

2 Results

2.1 Flora

Seven Priority Flora taxa as listed by DBCA were identified during the current survey within the survey area:



1. *Eutaxia lasiocalyx* (P2)
2. *Baeckea grandibracteata* subsp. Parker Range (K. Newbey 9270) (P3)
3. *Hakea pendens* (P3)
4. *Notisia intonsa* (P3)
5. *Teucrium diabolicum* (P3)
6. *Microcorys* sp. Forrestania (V. English 2004) (P4)
7. *Stenanthemum bremerense* (P4)



Details on each taxon are provided in Table 4 with the locations of each taxon recorded by Botanica within the survey area provided in Figure 3 to Figure 6. Note that a single mapped waypoint may represent multiple records of a species at a single location. See details on individual records in Appendix 2.



An impact assessment (as provided in Appendix 3) was conducted for the above Priority Flora recorded during the current survey and two additional taxa recorded within the survey area during previous surveys conducted by Botanica (2018). Records of Priority Flora were obtained from previous Botanica records and paid searches from the DBCA Threatened and Priority Flora database. These searches were used to obtain records within the local region (up to 100km of the survey area). DBCA database records vary considerably in the amount of detail regarding abundance that is available ranging from accurate counts or general abundance descriptions to no detail at all and only reflect the records currently entered into the database. Where databases provided no estimate of species abundance or numbers, it was assumed only a single individual plant was present. In most instances these assumptions are likely to result in a significant underestimate, and hence the final estimates of total individuals of each species are likely to be highly conservative. The impacts were based on a maximum track width of 4m, drill pads of 220m² and sumps of 24m², using proposed track and drill pad/ sump alignments provided by Western Areas geologists. The impact assessment was conducted for three potential options for the proposed GDP Phase 2 and CMP 2021 Compilation drilling programs as follows:


- Option 1: Surveyed drill lines as provided prior to field assessment (straight tracks)
- Option 2: Altered drill lines to avoid/ minimise impacts to Priority Flora (winding tracks)
- Option 3: Altered drill lines to avoid/ minimise impacts to Priority Flora and proposed alternate track line surveyed in November 2021.

Table 4: Priority Flora recorded within the survey area

Taxon	Conservation Code	Track	Description	Image
<i>Eutaxia lasiocalyx</i>	Priority 2	Sirius/Hydra	<p>At least five records exist for this species which prefers sandy loam, laterite and quartz gravel.</p> <p>During the September 24th/25th survey, 500 individuals were counted in one location, as well as 285 additional specimens recorded in the Sirius/Hydra survey area.</p> <p>During the November 11th follow up survey, 109 individuals were recorded along the alternate Sirius/Hydra track line.</p>	
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	Priority 3	Sirius/Hydra	<p>At least ten records exist for this species primarily documented to the west of Jilbadji Nature Reserve and the survey area.</p> <p>A cluster of 50 individuals was recorded during the current survey in the Sirius/Hydra survey area.</p>	

Taxon	Conservation Code	Track	Description	Image
<i>Hakea pendens</i>	Priority 3	Sirius/Hydra	<p>Numerous records exist within the Jilbadji Nature reserve and within the Shire of Kondinin.</p> <p>During the current survey, 23 individuals were counted in one location, as well as 10 additional specimens were recorded in the Sirius/Hydra survey area</p>	 <p><i>Hakea pendens</i></p> <p>Photos: A.D. Crawford</p>
<i>Notisia intonsa</i>	Priority 3	Sirius/Hydra	<p>At least 24 records exist for this species between Lake Barlee and Ravensthorpe.</p> <p>During the current survey, a cluster of 100 and a cluster of 20 individuals were identified. Additionally, a further nine individuals were recorded in the Sirius/Hydra survey area.</p>	

Taxon	Conservation Code	Track	Description	Image
<i>Teucrium diabolicum</i>	Priority 3	Sirius/Hydra	<p>At least 14 records exist for this species and it has been found to grow well in post-fire habitat.</p> <p>During the current survey, two clusters of approximately 1,500 and 23 <i>Teucrium diabolicum</i> were recorded in the Sirius/Hydra survey area. It was noted that as many as 10,000 individuals maybe present on the northern portion of the new tracks on a self-mulching clay.</p>	
<i>Microcorys</i> sp. Forrestania (V. English 2004)	Priority 4	Sirius/Hydra & Leeuwin	<p>Numerous records of this species recorded within and to the south of Jilbadji Nature reserve and the survey area. The species tends to prefer previously disturbed habitat.</p> <p>During the current survey, 18 individuals were recorded in the Sirius/Hydra survey area as well as 247 individuals recorded in the Leeuwin survey area.</p>	

Taxon	Conservation Code	Track	Description	Image
<i>Stenanthemum bremerense</i>	Priority 4	Sirius/Hydra	<p>Numerous records exist for this species mostly occurring to the east of the survey area and the west of Lake Johnston.</p> <p>During the current survey, 140 individuals were recorded in the Sirius/Hydra survey area</p>	 <p><i>Stenanthemum bremerense</i> Photos: G.F. Craig</p>

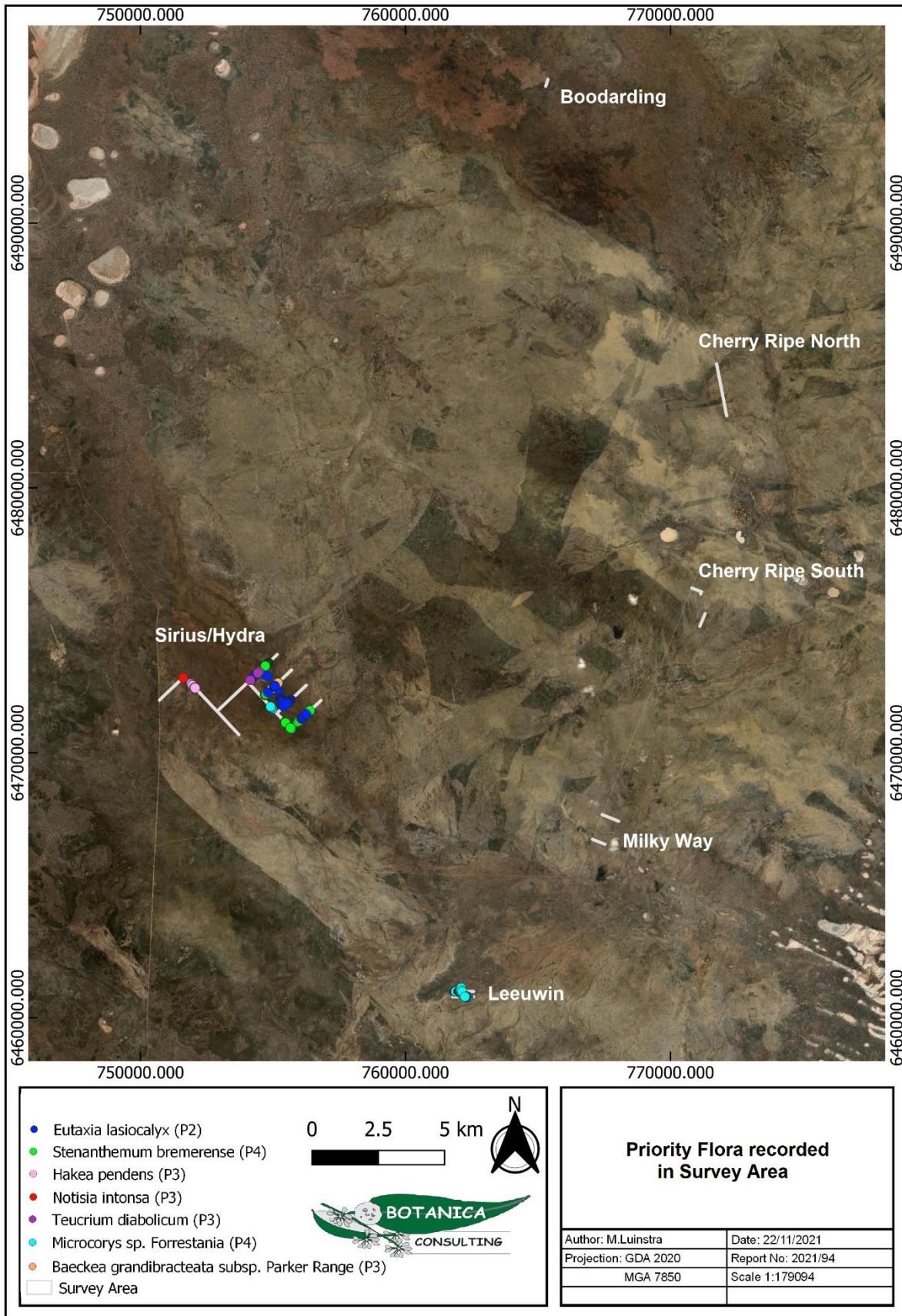


Figure 3: Priority Flora identified within Survey Area

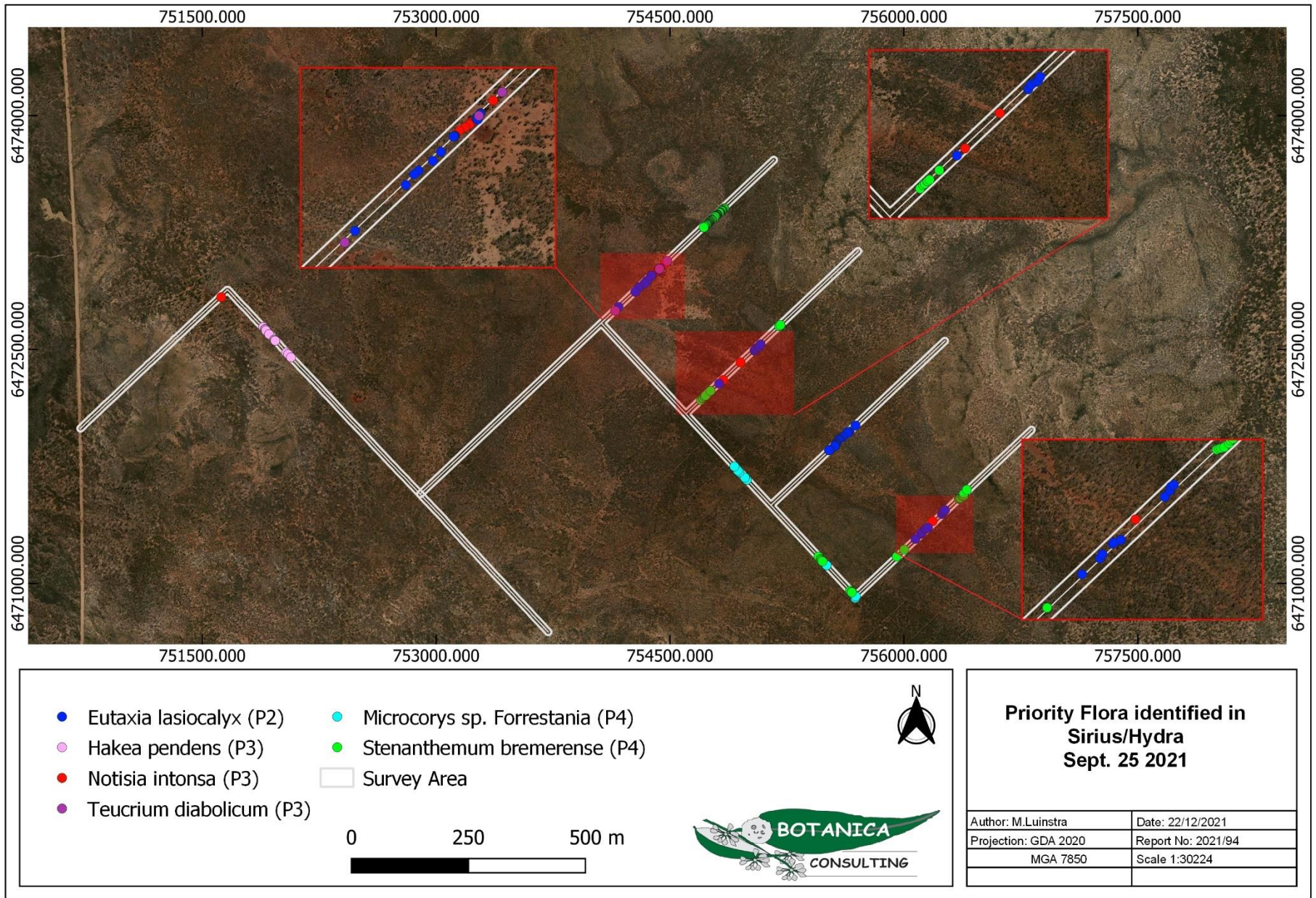


Figure 4: Priority Flora identified within Sirius/Hydra survey area (Sept. 25 2021)

A follow up survey conducted on November 11th 2021 of an alternative new track line (green) in the Sirius/Hydra survey area recorded an additional 109 *Eutaxia lasiocalyx* (P2) (Figure 5).

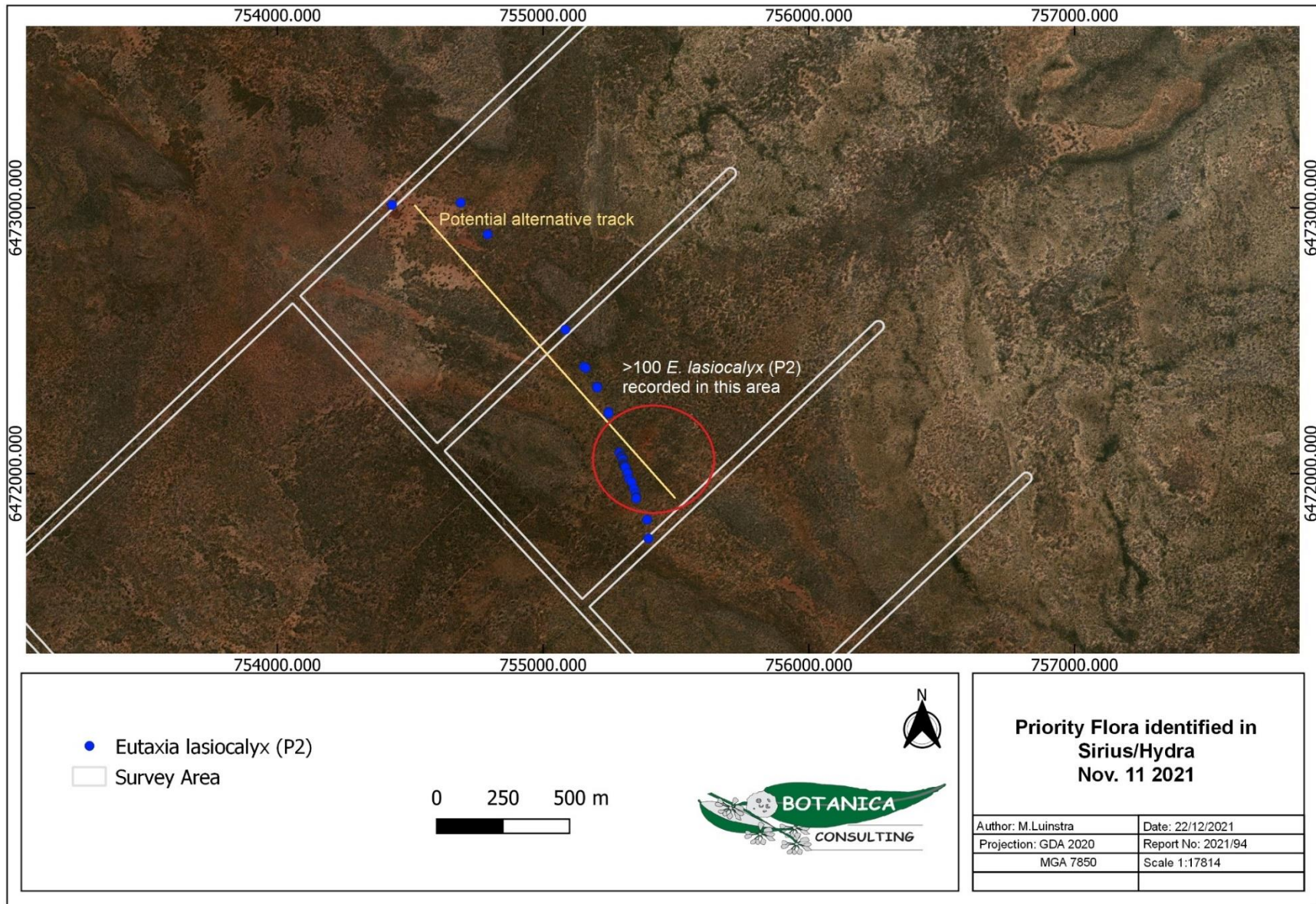


Figure 5: Priority Flora identified within Sirius/Hydra survey area and alternate track line (Nov. 11 2021)

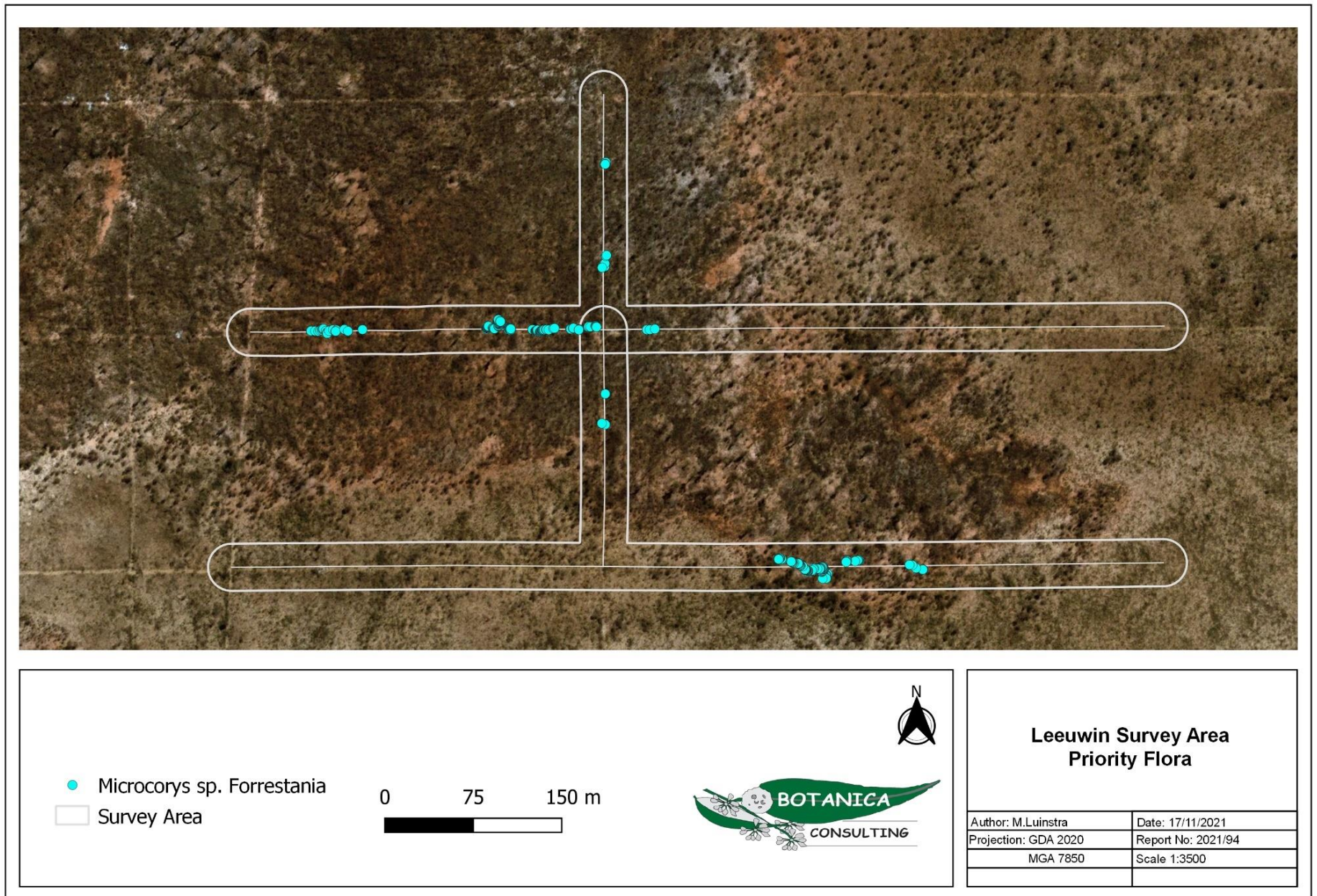


Figure 6: Priority Flora identified within the Leeuwin survey area (Sept. 24th 2021)

2.2 Fauna

Several direct sightings of one Threatened Fauna taxon; Malleefowl (*Leipoa ocellata*) were made during the survey near the Sirius/Hydra survey area (Table 5, Figure 7 & Figure 8). No active or inactive Malleefowl mounds were identified within the survey area. No other conservation significant fauna were identified during the survey. No suitable habitat trees/ hollow logs for use by significant fauna were identified within the survey area.

Table 5: Malleefowl observations recorded during survey

Malleefowl Observation	Date	GPS Coordinates (GDA94)
Direct sighting	24/09/2021	50 J 755640 6473229
Direct Sighting	11/11/2021	50 J 752473 6474352
Call	11/11/2021	50 J 754552 6473120

Non-threatened/priority fauna observed during the survey included a Southern Boobook (*Ninox novaeseelandiae*) sighting and Crested bell bird (*Oreoica gutturalis*) call at Cherry Ripe North, as well as a Mulga Parrot (*Psephotellus varius*) and Western Bearded Dragon (*Pogona minor*) sighting in the Sirius/Hydra survey area.

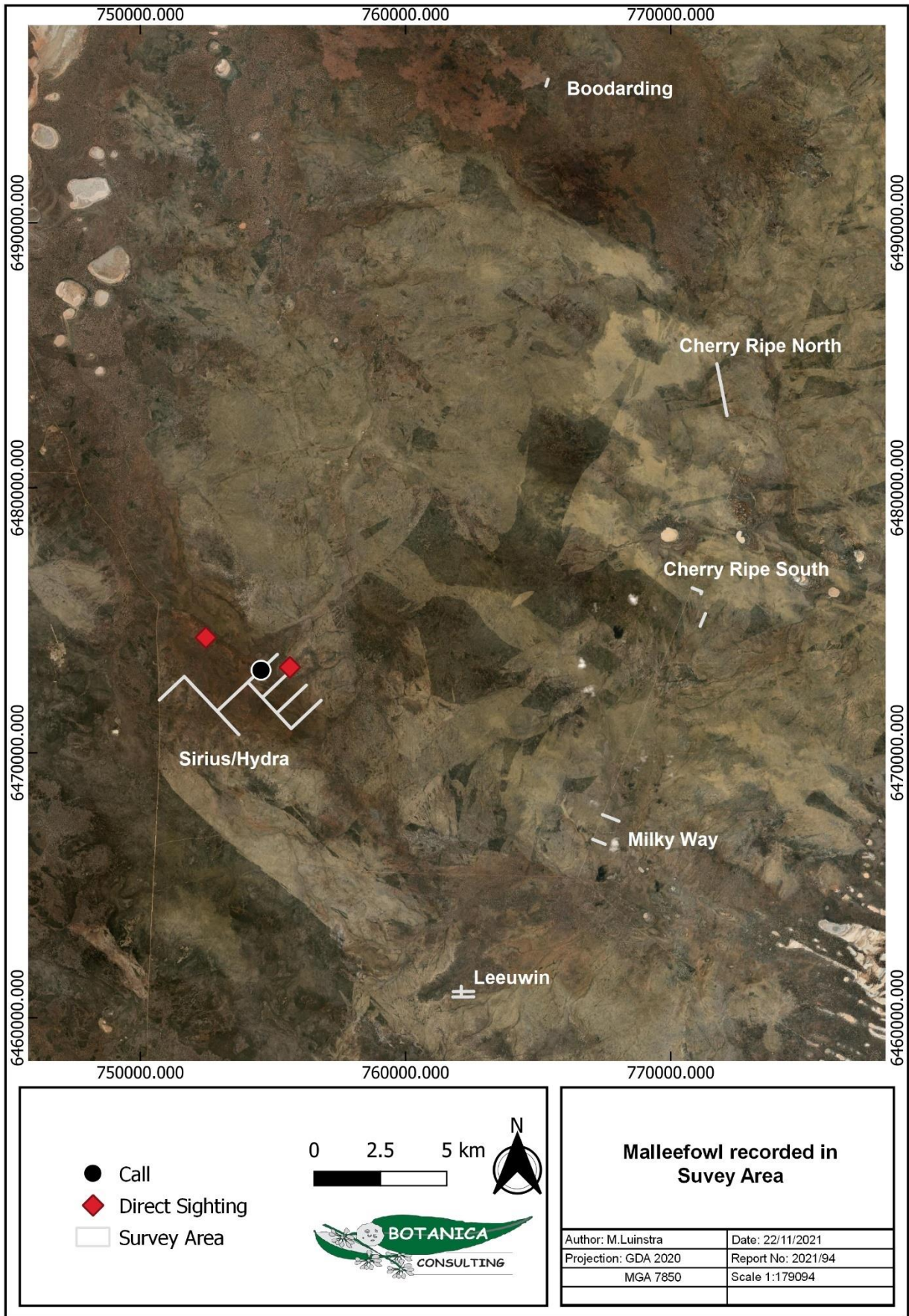


Figure 7: Malleefowl observations in the Survey Area

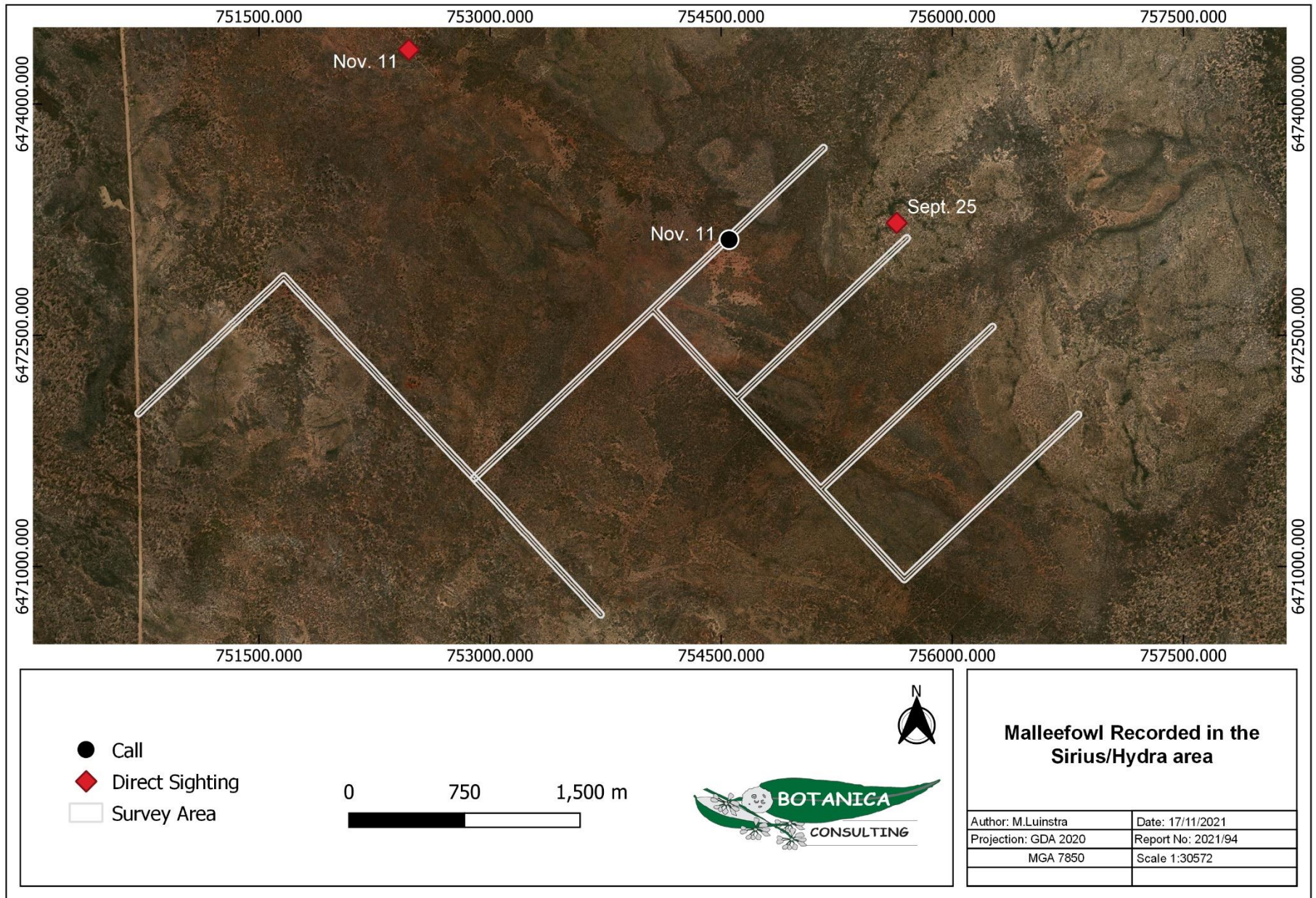






Figure 8: Malleefowl observations in the Sirius/Hydra survey area



2.3 Vegetation



A total of nine broad vegetation associations were identified within the survey area (Table 6 and Figure 9-Figure 13). Much of the survey area surrounding the Sirius/Hydra tracks included previously burnt vegetation.



Table 6: Vegetation Associations within the survey area



Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
Boodarding	Clay Loam Plain	Eucalyptus Woodland (MVG 5)	Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain.	CLP-EW3	1.2	
Cherry Ripe North	Sandplain	Mallee Woodlands and Shrublands (MVG 14)	Mid Mallee Shrubland of <i>Eucalyptus platycorys</i> / <i>pileata</i> on sand-loam plain.	SP-MWS1	1.1	



Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
	Sandplain	Heathlands (MVG 18)	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain.	SP-H1	7.0	
Cherry Ripe South	Sandplain	Heathlands (MVG 18)	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain.	SP-H1	2.0	


Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
	Sand-Loam plain	Mallee Woodland and Shrubland (MVG 14)	Mid Shrubland Mallee of <i>Eucalyptus platycorys/pileata</i> on loam plain.	SLP-RMW1	2.2	
Milky Way	Sandplain	Heathlands (MVG 18)	Mid Heathland of <i>Allocasuarina</i> spp./ <i>Melaleuca hamata</i> on sandplain.	SP-H1	0.1	

Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
	Sand-Loam plain	Mallee Woodland and Shrubland (MVG 14)	Mid Shrubland Mallee of <i>Eucalyptus platycorys/ pileata</i> on sand-loam plain.	SP-MWS1	3.5	
Leeuwin	Clay Loam Plain	Mallee Woodlands and Shrublands (MVG 14)	Open shrub Mallee of <i>Eucalyptus livida/ E. tenera</i> over low scrub of <i>Acacia yorkrakinensis/ Melaleuca hamata</i> and mixed low heath on rocky plain/ laterite rise.	CLP-RMW1	4.3	

Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
	Clay Loam Plain	Eucalyptus Woodland (MVG 5)	Mid Open Woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> on clay-loam plain.	CLP-EW3	3.7	
	Clay Loam Plain	Eucalyptus Woodland (MVG 5)	Regrowth open low woodland of <i>Eucalyptus salmonophloia</i> / <i>E. salubris</i> / <i>E. urna</i> over scrub of <i>Melaleuca pauperiflora</i> subsp. <i>pauperiflora</i> and mixed low scrub on clay-loam plain.	CLP-EW1	7.4	

Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
Sirius/Hydra	Clay Loam Plain	Eucalyptus Woodland (MVG 5)	Low open forest - previously burnt - of <i>Eucalyptus flocktoniae/ E. salmonophloia</i> E. <i>urna</i> on clay-loam plain.	CLP-EW2	25.7	
	Clay Loam Plain	Eucalyptus Woodland (MVG 5)	Mid Open Woodland of <i>Eucalyptus salmonophloia/ E. salubris/ E. urna</i> on clay-loam plain	CLP-EW3	2.2	

Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
Sirius/Hydra	Hillslope	Mallee Woodlands and Shrublands (MVG 14)	Very open shrub mallee of <i>Eucalyptus livida</i> / <i>E. cylindriflora</i> over heath of <i>Allocasuarina acutivalvis</i> / <i>A. corniculata</i> / <i>Acacia yorkrakinensis</i> and mixed low heath on rocky plain/ laterite rise.	HS-MWS1	12.7	
	Sandplain	Heathlands (MVG 18)	Mid Heathland of <i>Acacia</i> spp. / <i>Allocasuarina</i> spp. on sandplain.	SP-AT1	1.6	

Track	Landform	Major Vegetation Group	Vegetation Association	Vegetation Code	Area (ha)	Image
Sirius/Hydra	Sandplain	Mallee Woodlands and Shrublands (MVG 14)	Mid Shrubland Mallee of <i>Eucalyptus platycorys/pileata</i> on loam plain.	SP-MWS1	2.9	
Total					77.7	

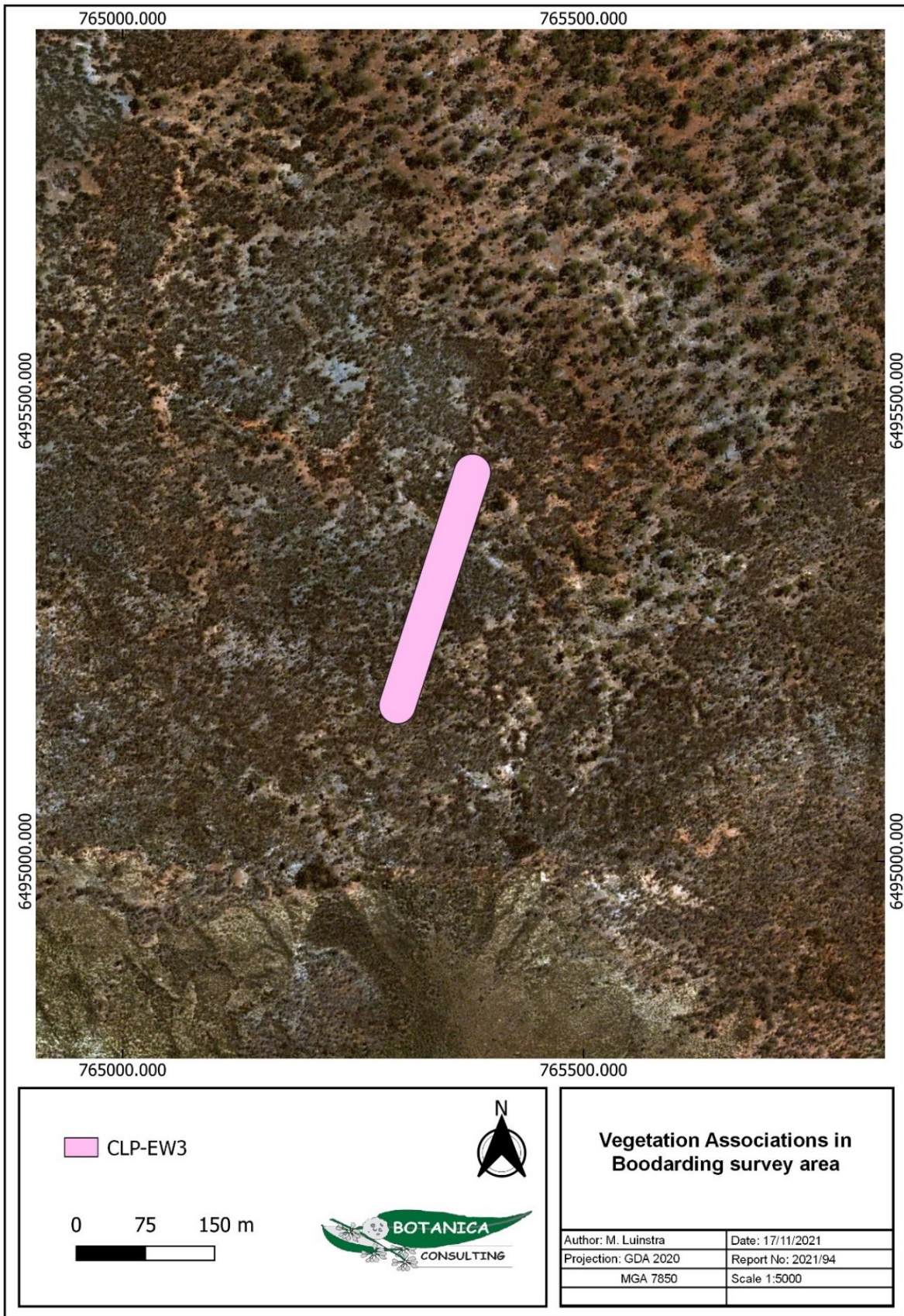


Figure 9: Vegetation Associations within the Boodarding survey area

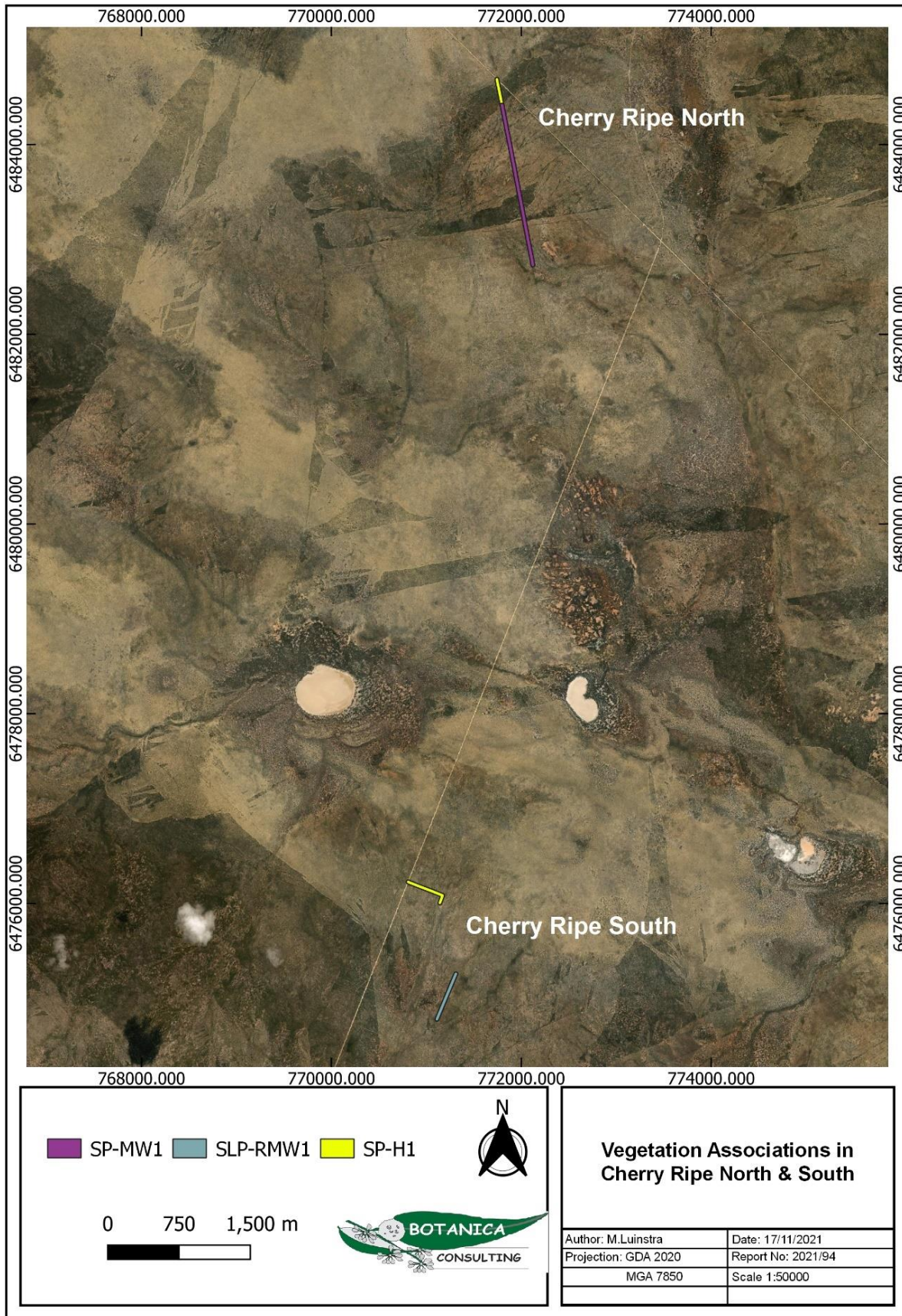


Figure 10: Vegetation Associations within the Cherry Ripe North & South survey area

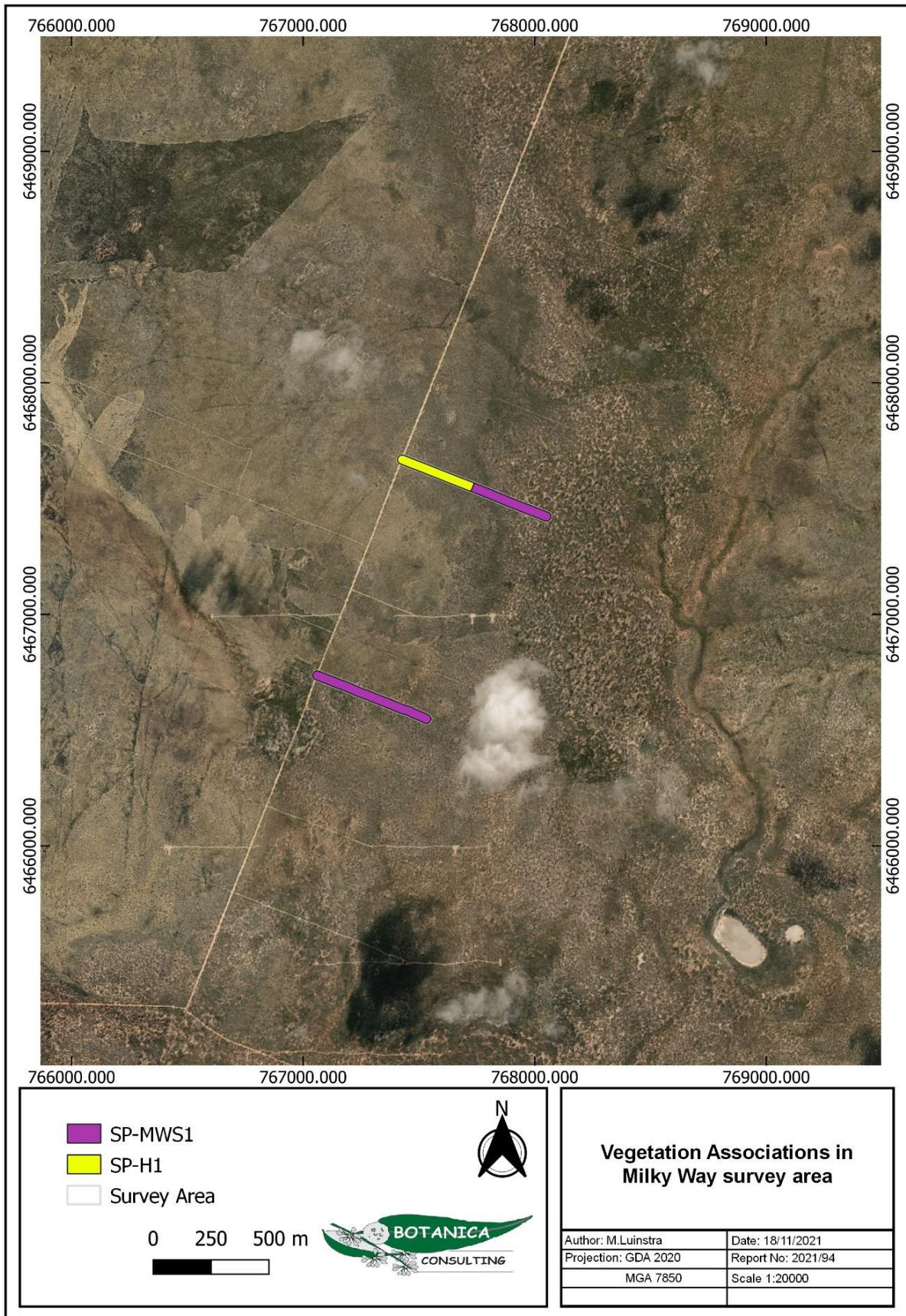


Figure 11: Vegetation Associations within the Milky Way survey area

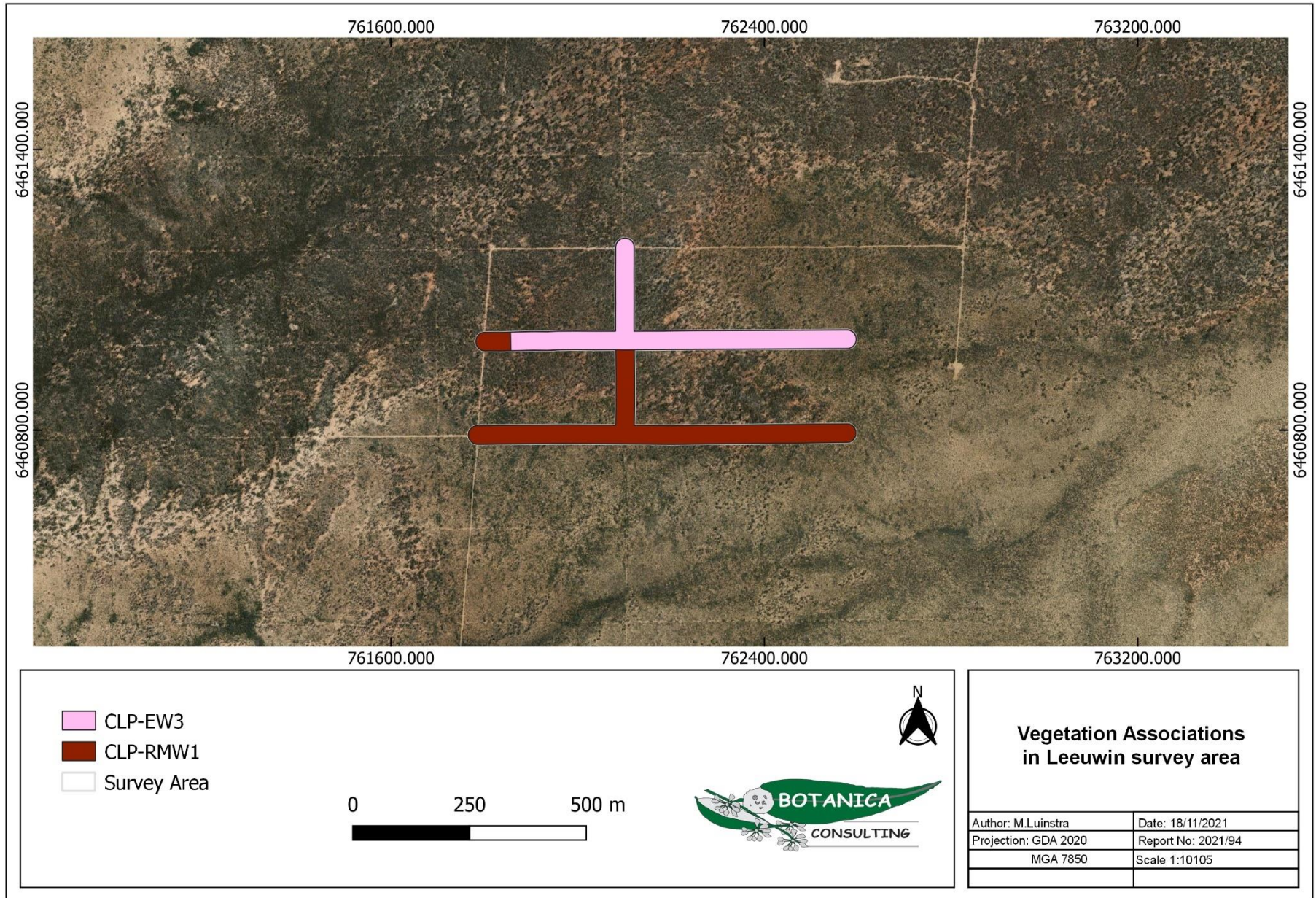


Figure 12: Vegetation Associations within the Leeuwin survey area

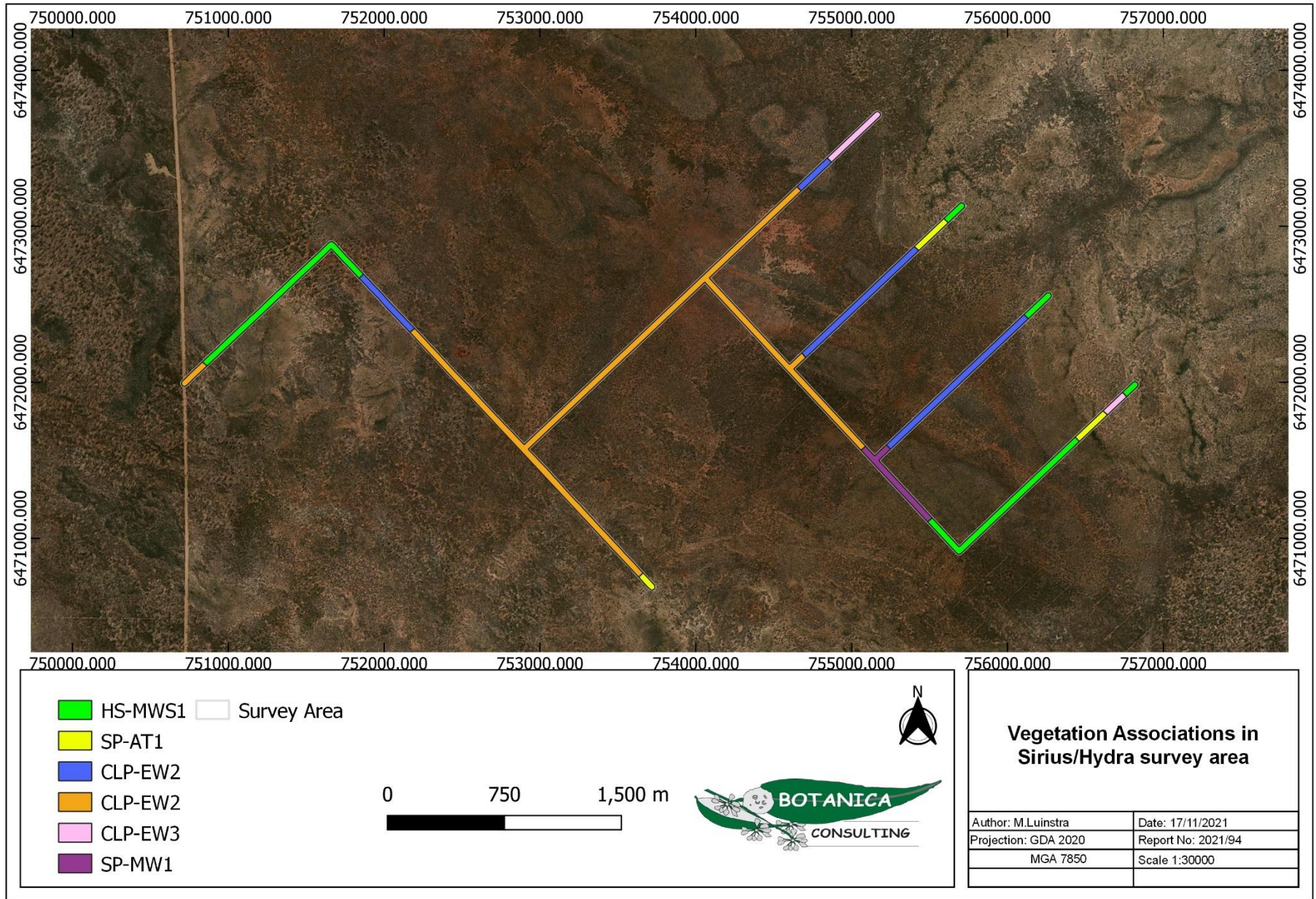


Figure 13: Vegetation Associations within the Sirius/Hydra survey area

2.4 Conservation Areas

The Parker Dome survey area is located within the Jilbadji Nature Reserve, a Class “C” reserve covering approximately 210,000 ha in area and listed since 1961 (Figure 14). As per the tenement conditions for operating within a Nature Reserve, any proposed development must comply with the approved Conservation Management Plan (Western Areas, 2019). Jilbadji Nature Reserve is also listed as an Environmentally Sensitive Area (ESA) and therefore any exploration work is subject to the approval of a Clearing Permit. The Sirius/Hydra survey area is located within the northwestern portion of the ‘Plant assemblages of the Parker Range System’ (Parker Range PEC) which is listed by the DBCA as a Priority 3 Ecological Community (PEC). As such, any disturbances within the PEC require compliance with the Conservation Management Plan and consultation with the DBCA species and communities program. A description of the Parker Range PEC is as follows:

The vegetation of the Parker Range system as originally described in Beard (1979) includes all the vegetation units of the range including: Eucalyptus sheathiana with E. transcontinentalis and/or E. eremophila woodland on sandy soils at the base of ridges and low rises; E. longicornis with E. corrugata and E. salubris or E. myridena woodland on broad flats; E. salmonophloia and E. salubris woodland on broad flats; Allocasuarina acutivalvis and A. corniculata on deeper sandy soils of lateritic ridges; E. capillosa subsp. polyclada and/or E. loxophleba over Hakea pendens thicket on skeletal soils on ridges (laterites, breakaways and massive gossanous caps); and Callitris glaucophylla low open woodland on massive greenstone ridges (vegetation units as described in Gibson and Lyons 1998).

The Parker Range PEC spatial data overlaps the majority of the Sirius/Hydra survey area and a small portion of the Boodarding survey area (vegetation association CLP-EW3). Vegetation associations identified within the Sirius/Hydra survey area that overlap the Parker Range PEC include:

1. CLP-EW1: Regrowth open low woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* over scrub of *Melaleuca pauperiflora* subsp. *pauperiflora* and mixed low scrub on clay-loam plain;
2. CLP-EW2: Low open forest - previously burnt - of *Eucalyptus flocktoniae*/ *E. salmonophloia* *E. urna* on clay-loam plain;
3. CLP-EW3: Mid Open Woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* on clay-loam plain.
4. HS-MWS1: Very open shrub mallee of *Eucalyptus livida*/ *E. cylindriflora* over heath of *Allocasuarina acutivalvis*/ *A. corniculata*/ *Acacia yorkkrakinensis* and mixed low heath on rocky plain/ laterite rise;
5. SP-MWS1: Mid Mallee Shrubland of *Eucalyptus platycorys*/ *E. pileata* on sand-loam plain; and
6. SP-AT1: Mid Heathland of *Acacia* spp./ *Allocasuarina* spp. on sandplain.

Several vegetation communities identified in the survey area and overlapping the Parker Range PEC spatial data share similar descriptions. Particularly, “*E. salmonophloia* and *E. salubris* woodland on broad flats” which share similar species and description to the vegetation associations CLP-EW1 and CLP-EW3. The total area of CLP-EW1 and CLP-EW3 overlapping the Sirius/Hydra survey area and within the Parker Range PEC spatial data is 11.8 ha and 1.7 ha, respectively. In the Boodarding survey area, 0.09 ha (all of which is vegetation association CLP-EW3) overlaps the Parker Range PEC spatial data.

The Parker Dome survey area is also surrounded by several proposed reserves. Approximately 30km south of the most southern Parker Dome exploration tenement is the EPA proposed Lake Cronin reserve and Iron Cap reserve (Class A). These proposed reserve areas contain multiple records of endemic species associated with Banded Ironstone Formation (BIF) vegetation community (EPA, 2009). None of the vegetation communities mapped in the Jilbadji Nature Reserve exploration tenements have been found to contain BIF vegetation communities, instead being dominated by Sandplain and Clay-loam plain which are common and widespread in the Great Western Woodlands region.

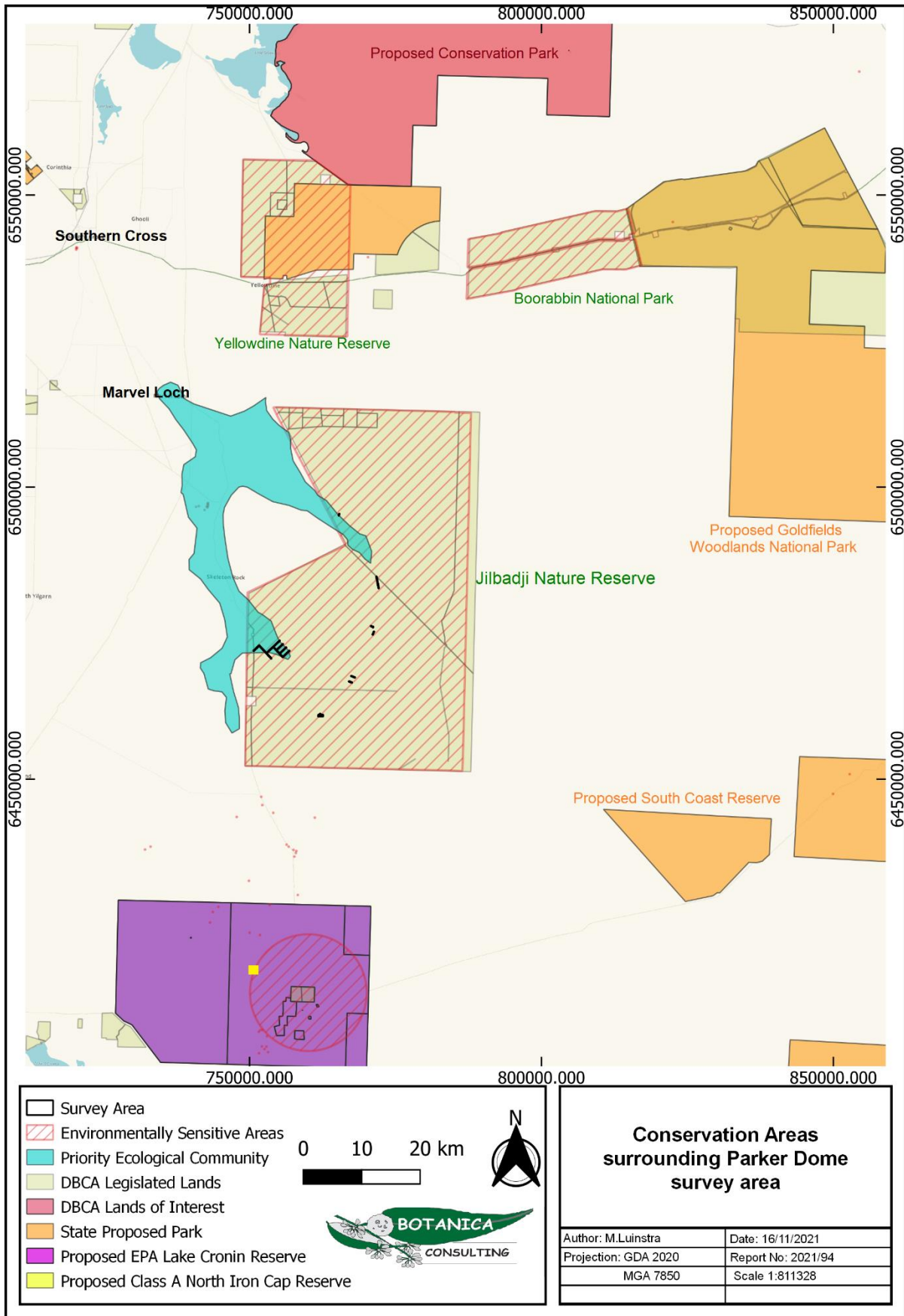


Figure 14: Conservation Areas in relation to the Survey Area

Results from the DAWE Protected Matters Search Tool indicate that the Wheatbelt Woodlands, a Threatened Ecological Community (TEC), may occur within the survey area. DBCA TEC spatial files show that a portion of the Sirius/Hydra survey area overlap with the Wheatbelt Woodlands TEC (Figure 17). However, the vegetation associations identified within this portion of the survey area was primarily composed of Mallee woodland. The lesser part of the overlapping area consisted of the CLP-EW1 vegetation association: regrowth of previously burnt (estimated 2018 or later) open low woodland of *Eucalyptus salmonophloia*/*E. salubris*/*E. urna* over scrub of *Melaleuca pauperiflora* subsp. *pauperiflora* and mixed low scrub on clay-loam plain. A small portion of the overlapping area consisted of the CLP-EW2 vegetation association (also noted to have been previously burnt) consisting of *Eucalyptus flocktoniae*/ *E. salmonophloia* *E. urna* on clay-loam plain. It is also worth noting that the portion of Sirius/Hydra overlapping the spatial data for the TEC has also been previously cleared. It is therefore unlikely that the proposed re-clearing of these tracks will have any impact the TEC population.

Figure 15 shows a visual representation of the Wheatbelt Woodlands TEC. Photographs of the Eucalyptus woodland vegetation associations (CLP-EW1 and CLP-EW2) taken in the Sirius/Hydra survey area provided in Figure 16 for comparison.



Figure 15: Wheatbelt Woodlands TEC in the Shire of Westonia (left: *Eucalyptus longicornis* woodland variety, right: *Eucalyptus salubris* variety)



Figure 16: Eucalyptus woodlands identified in Sirius/Hydra survey area (left: Regrowth open low woodland of *Eucalyptus salmonophloia*/ *E. salubris*/ *E. urna* (CLP-EW1), right: Re-growth woodland of *Eucalyptus flocktoniae*/ *E. salmonophloia* *E. urna* (CLP-EW2)

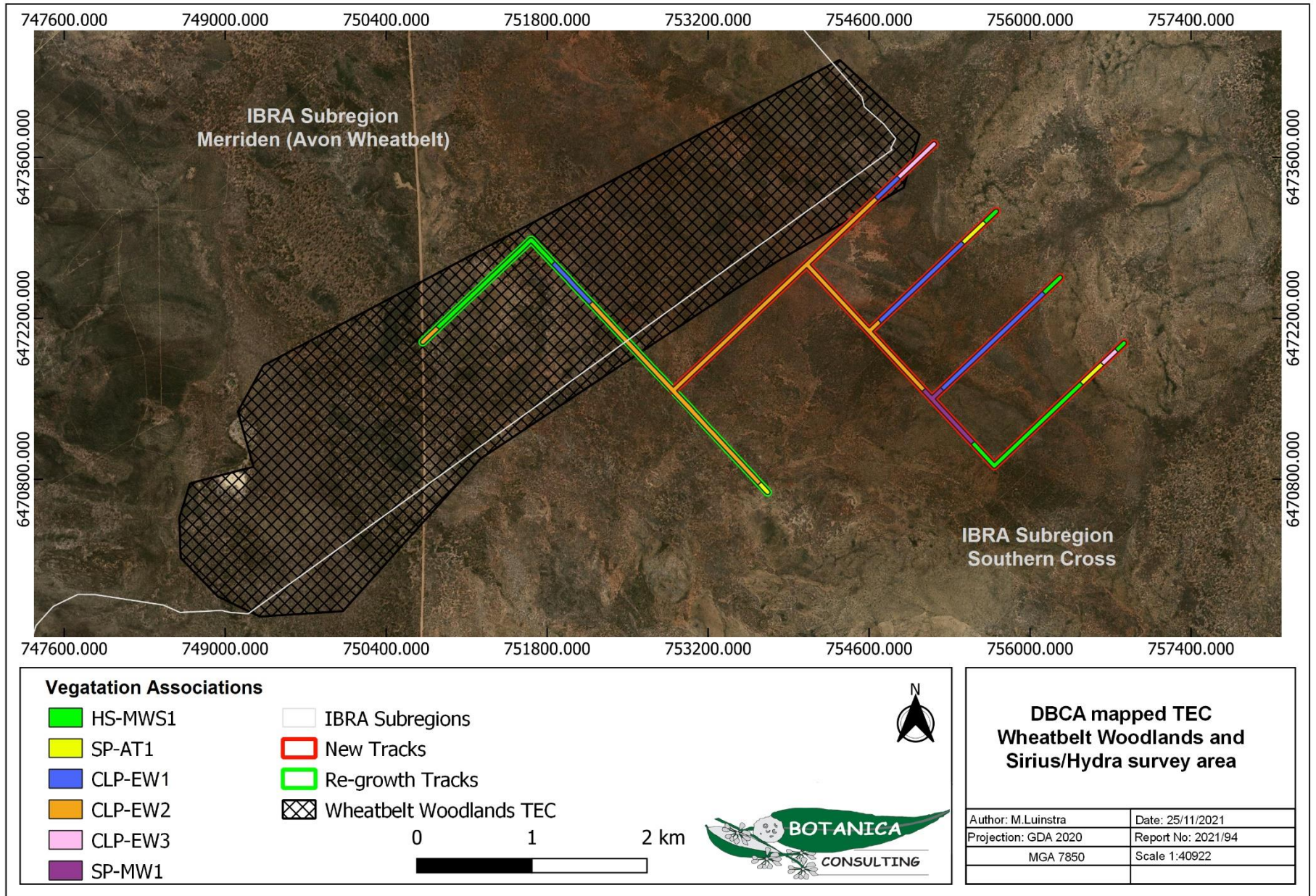


Figure 17: DBCA Wheatbelt Woodlands TEC spatial data in relation to Sirius/Hydra survey area

3 Conclusion

No Threatened or Priority fauna were identified within the survey area, however direct observations of Malleefowl (*Leipoa ocellata*) were recorded near the Sirius/Hydra survey area (Table 5).

No Threatened or Priority flora were identified within the Boodarding, Cherry Ripe North, Cherry Ripe South or Milky Way tracks. Based on information provided by WSA, the proposed tracks will have minimal impact on native vegetation as the majority of these tracks - except Boodarding – comprise of regrowth vegetation from previous clearing.

Clearing within a 10m radius of all individuals identified should be avoided. Where disturbance is unavoidable, as outlined in the impact assessment (including a 10m radius of each plant for each of the options listed provided in Appendix 3), consultation with the DBCA Species and Communities Program is required. GPS locations of Priority flora proposed to be impacted are provided in Appendix 4.

4 Bibliography

AECOM (2020) *E77-2244 Flora and Fauna Assessment*. Prepared for: Wesfarmers Chemicals, Energy and Fertilisers.

Australasian Ecological Service (2018). Level 1 Fauna Assessment and Level 2 Targeted Fauna Survey of Proposed Parker Dome and Northern Estates Clearing Envelopes, Jilbadji Nature Reserve. Prepared for: Western Areas.

BoM (2021), Hyden weather station (#10568) Climate Data, Bureau of Meteorology.
Available: <http://www.bom.gov.au/climate>
Accessed: 19th October 2021

Botanica Consulting (2010), *Flora and Vegetation of the Parker Range Region*. Prepared for Cazaly Resources Ltd.

Botanica Consulting (2016a), *Level 1 flora survey Martins Prospect*. Prepared for Hanking Gold Mine Limited.

Botanica Consulting (2016b), *Level 2 flora and fauna survey Redwing Project*. Prepared for Hanking Gold Mine Limited.

Botanica Consulting (2017), *Targeted search for flora of conservation significance- Jilbadji Nature Reserve*. Prepared for Western Areas Limited.

Botanica Consulting (2019) *Detailed Flora & Vegetation Survey and Targeted Flora Survey of the Parker Dome Exploration Project*. Prepared for Western Areas Limited.

DAWE (2021a), *Protected Matters Search Tool, Environment Protection and Biodiversity Conservation Act 1999*, Department of Agriculture, Water and Environment
Accessed: 4th November 2021

DAWE (2021b) Species Profiles and Threats Database, Department of Agriculture, Water and Environment
Available: <http://www.environment.gov.au/sprat>
Accessed: 4th November 2021

DBCA, (2021a), *Threatened and Priority Flora Database search results*, Department of Biodiversity, Conservation and Attractions.

DBCA, (2021b), *Threatened Ecological Community and Priority Ecological Community database search*, Department of Biodiversity, Conservation and Attractions.

DBCA (2021), *Nature Map Database search*, Department of Biodiversity, Conservation and Attractions
Available: <https://naturemap.dpaw.wa.gov.au/>
Accessed: 19th October 2021.

EPA (2009), *Advice on Conservation Values and Review of Nature Reserve Proposals in the Lake Cronin Region – June 2009*. Environmental Protection Authority.

EPA (2016), *Technical Guide - Flora and Vegetation Surveys for Environmental Impact Assessment – December 2016*. Environmental Protection Authority.

EPA (2020), *Technical Guide – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment – June 2020*. Environmental Protection Authority.

Gibson, N and Lyons, M.N. (1998), *Flora and Vegetation of the Eastern Goldfields Ranges: Part 3. Parker Range*.

How, R. A Newbey, K.R Dell, J. Muir, B.G & Hnatiuk, R.J, (1988), *The Biological survey of the Eastern Goldfields of Western Australia: Lake Johnston-Hyden*. Western Australian Museum Supplement No. 30.

MWH, A. (2014) *Cheritons Find Level 1 Vegetation, Flora and Targeted Flora Survey*, CHER-VO-14001.

PEK Enviro (2016), *Forrestania Nickel Operation Regional Exploration Program Level 1 vegetation and flora survey Parker Dome project in the Jilbadji Nature Reserve*.

Recon Environmental (2007), *Burbidge Vegetation Survey*. Prepared for St Barbara Limited.

RPS Environment and Planning Pty Ltd. (2012) *Pre-clearing targeted significant flora and malleefowl survey*, Report prepared for Audax Minerals Pty Ltd, September 2012.

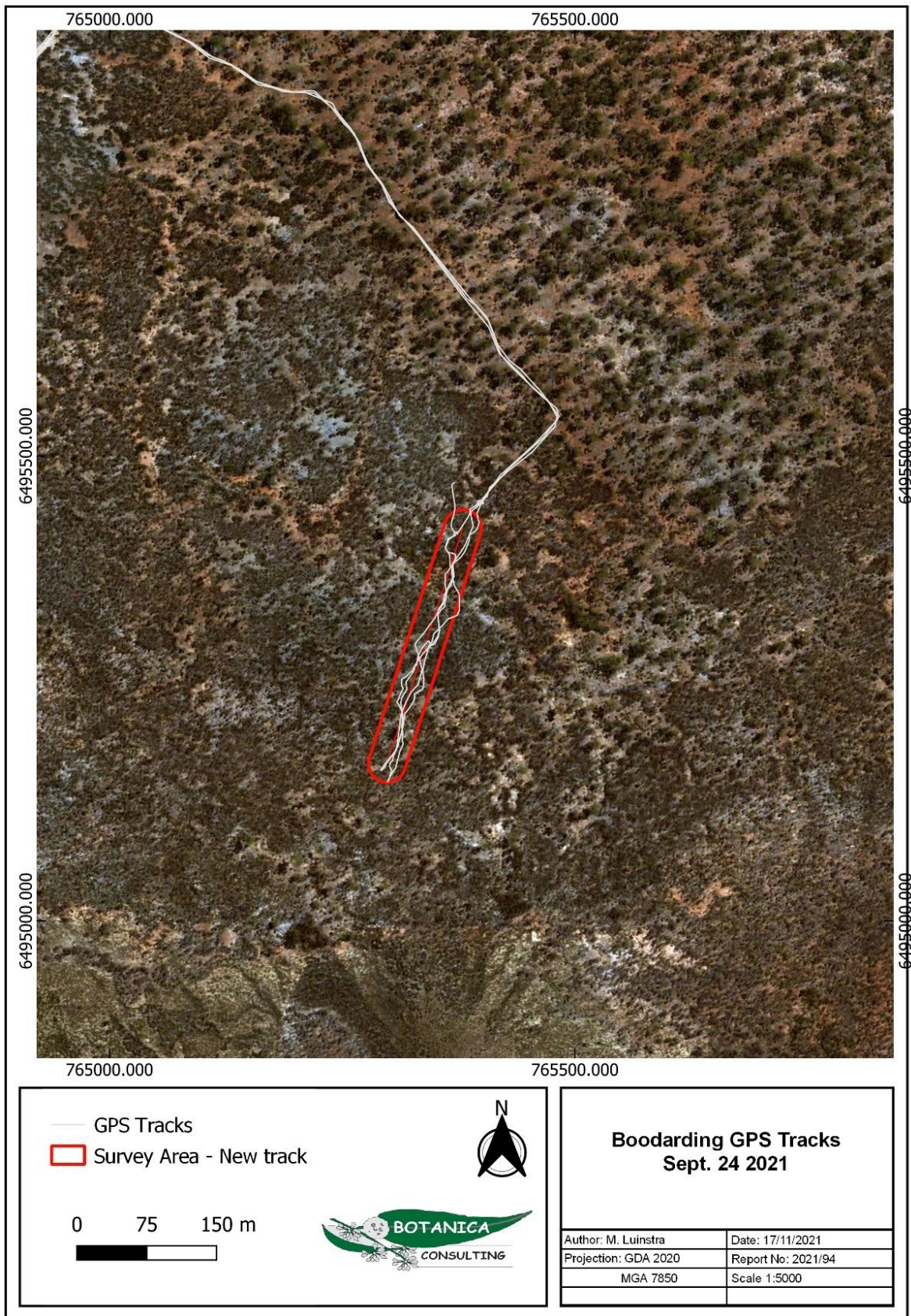
WAHERB, (2021), *Florabase – Information on the Western Australian Flora*, Department of Biodiversity, Conservation and Attractions.

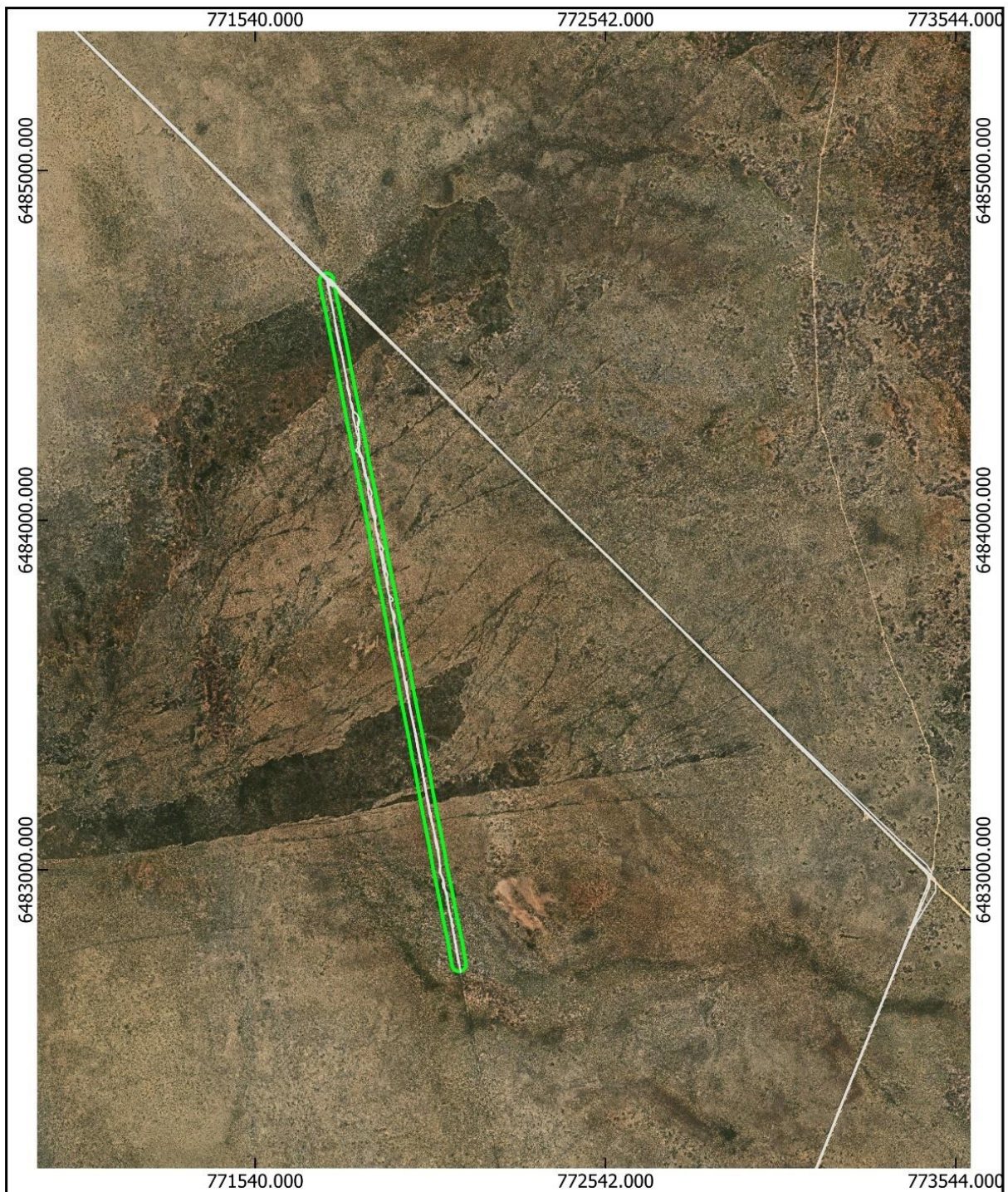
Available: <https://florabase.dpaw.wa.gov.au/>

Accessed 16th November 2021

Western Areas (2019) *Conservation Management Plan for exploration and prospecting within the Jilbadji Nature Reserve on tenements E77/1581, E77/1734, E77/2235, E77/2236, E77/2440, E77/2261, E77/2527, P77/4475, P77/4476, P77/4477, P77/4478, P77/4479 - Version 2*. February 2019.

Appendix 1: GPS Tracks recorded within Parker Dome survey area



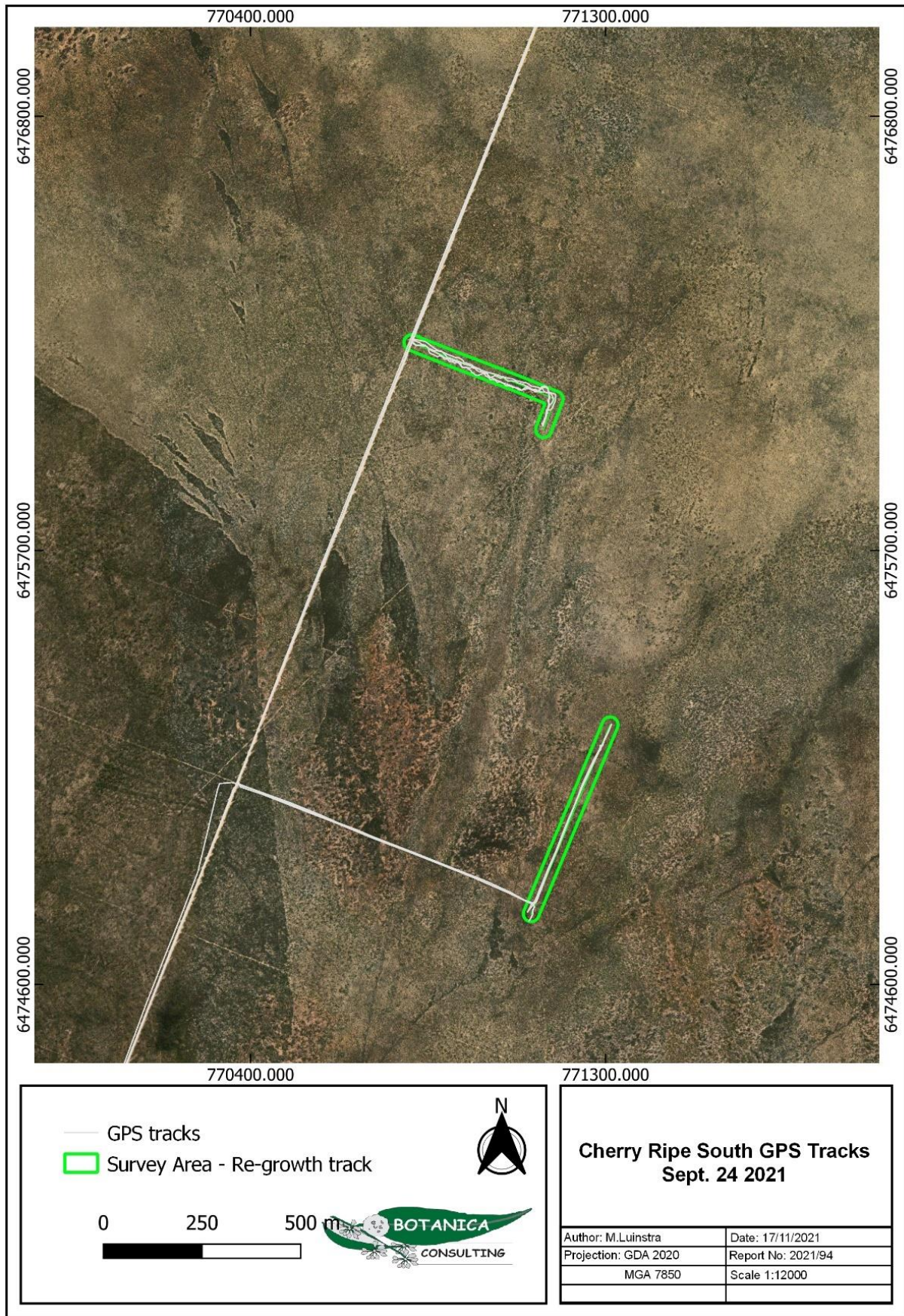


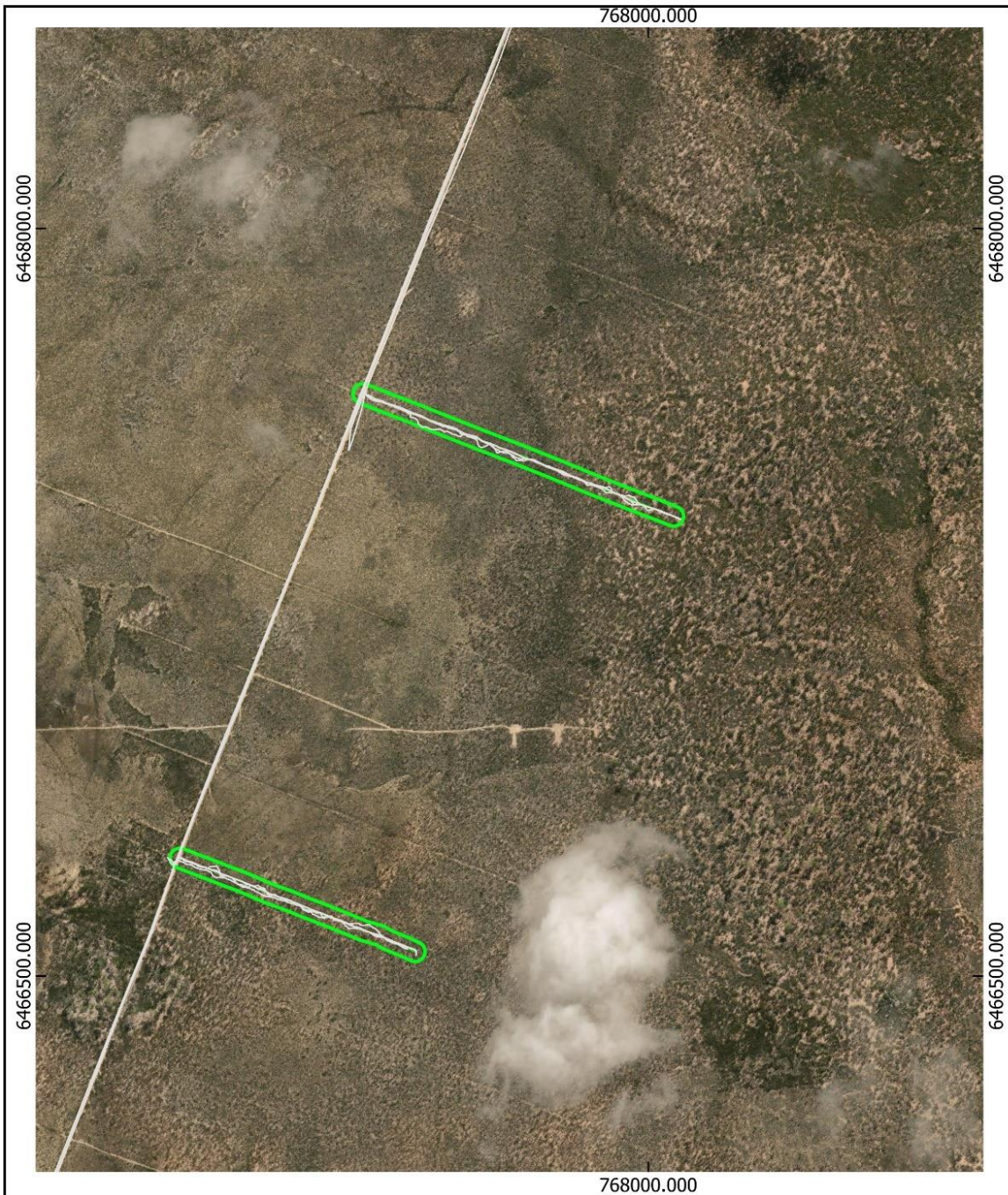
— GPS tracks

□ Survey Area - Re-growth track

0 250 500 m

Cherry Ripe North GPS Tracks Sept. 24 2021	
Author: M.Luinstra	Date: 17/11/2021
Projection: GDA 2020	Report No: 2021/94
MGA 7850	Scale 1:15000



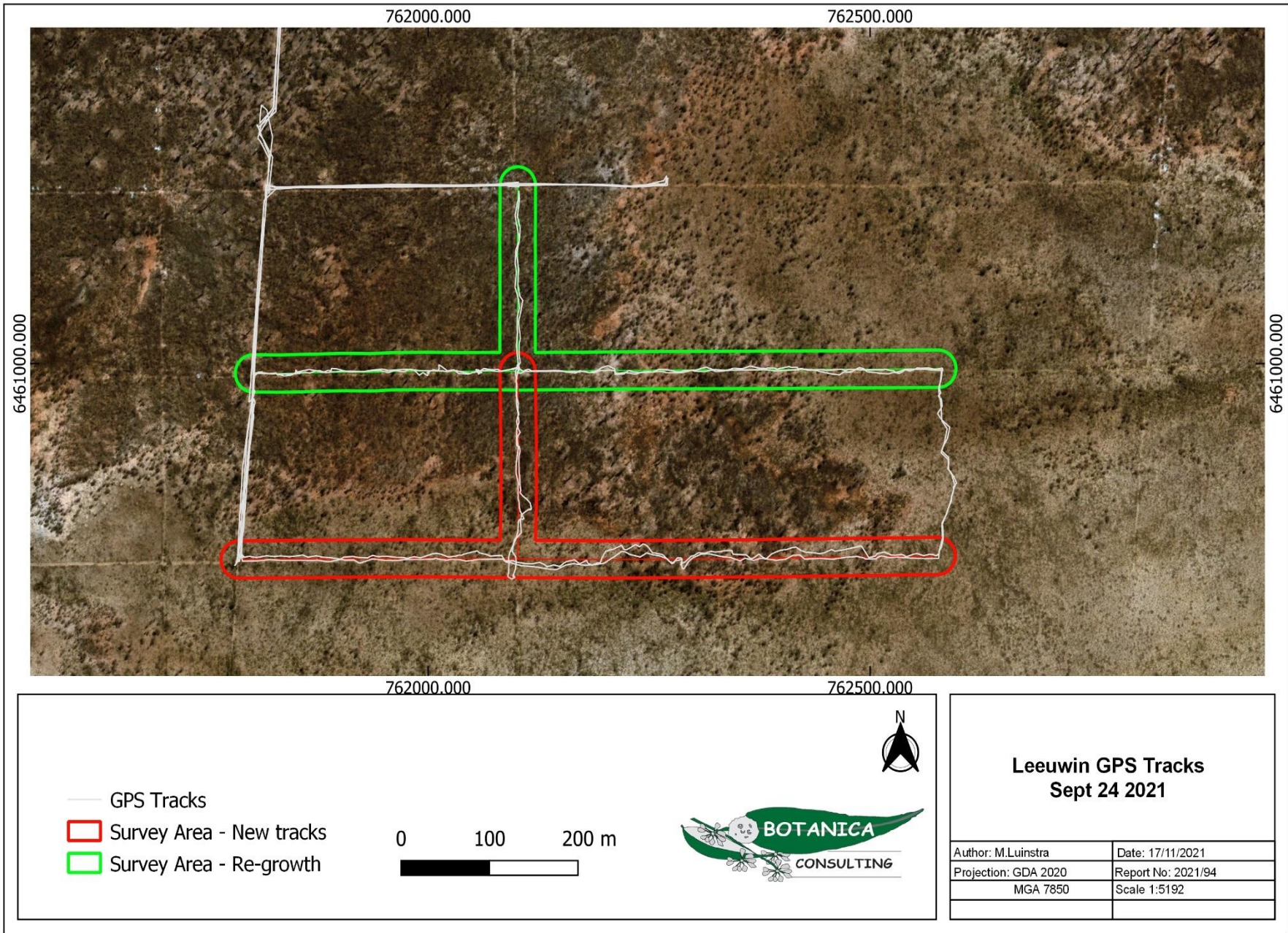


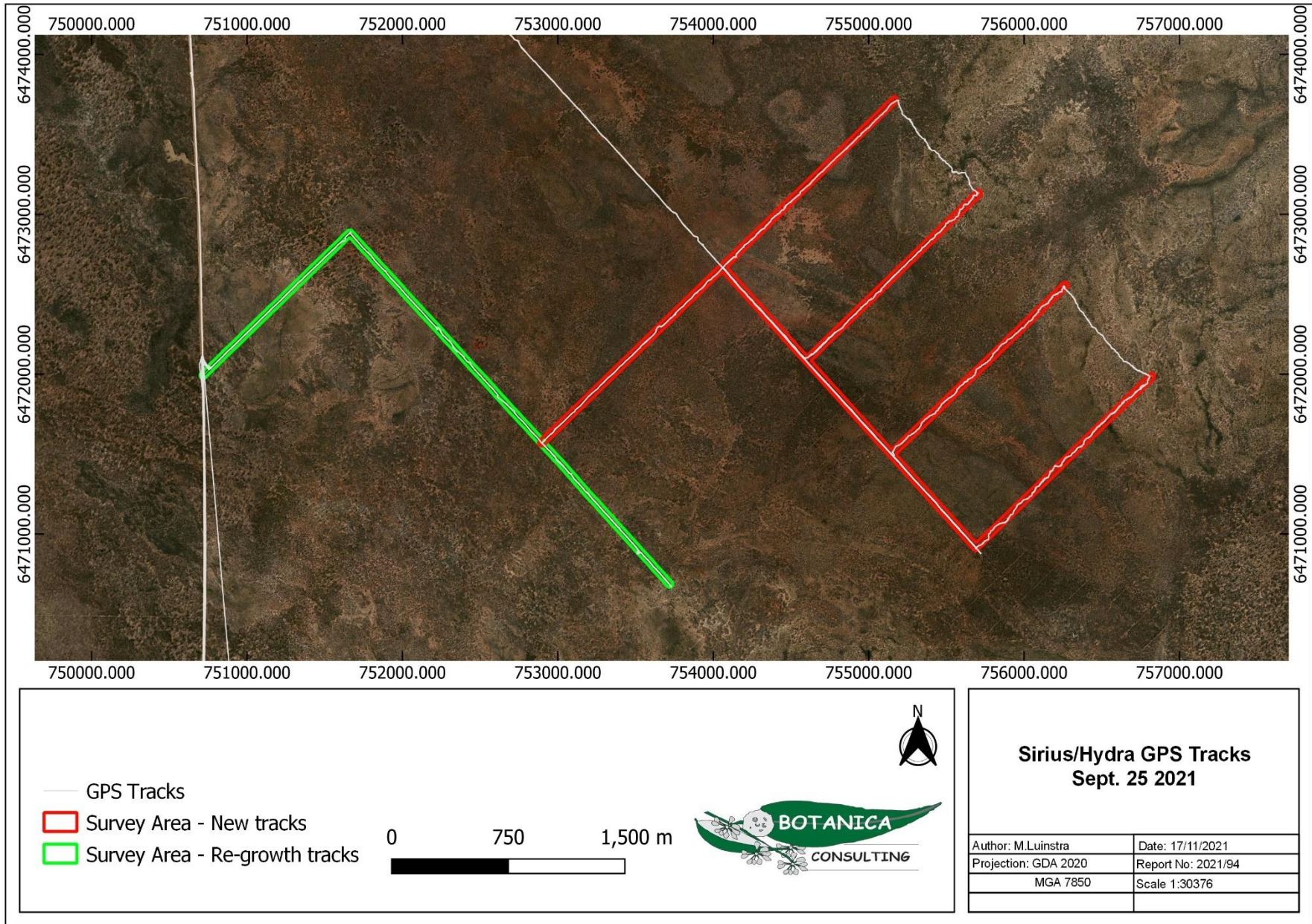
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 □ Survey Area - Re-growth tracks

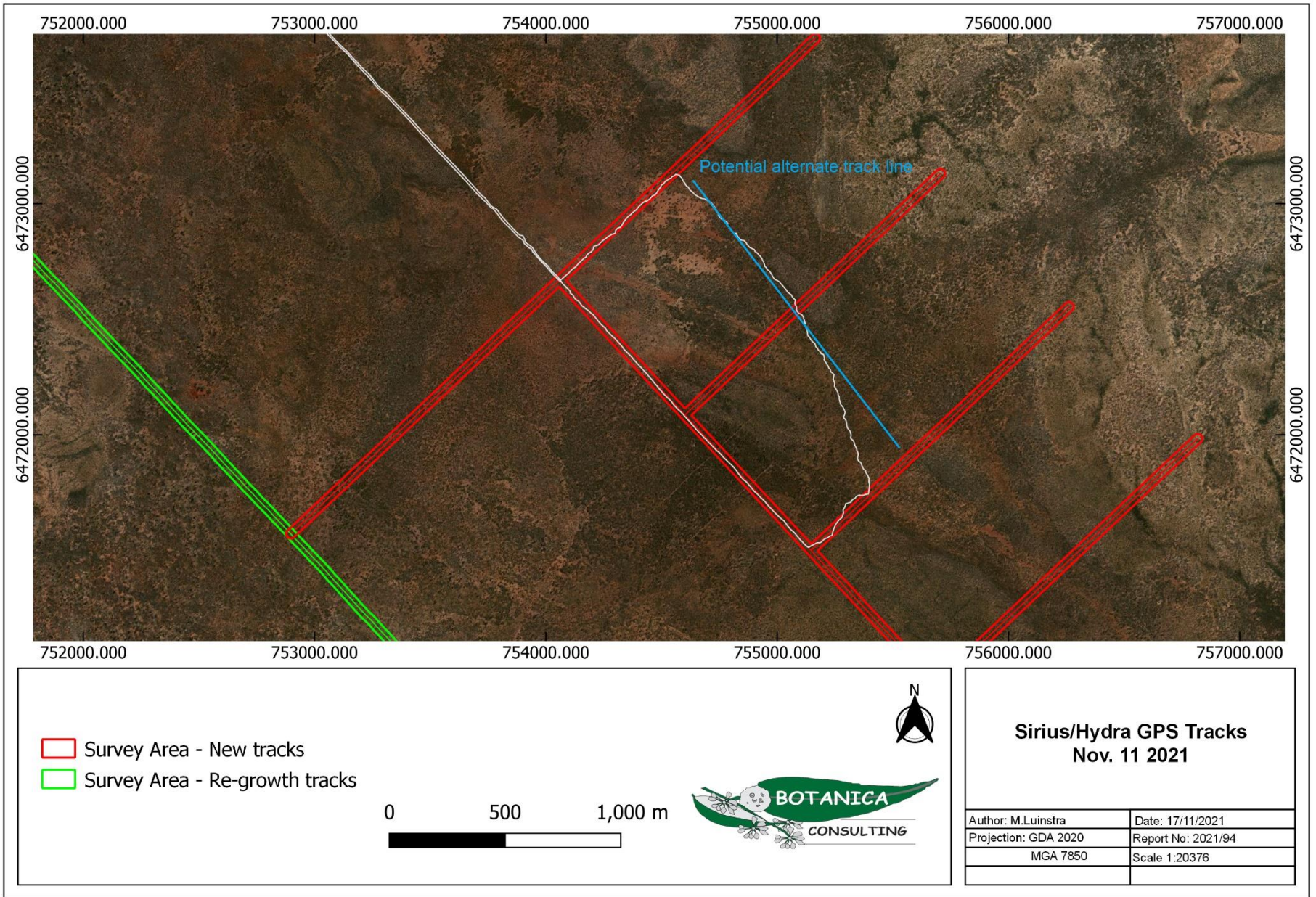
0 250 500 m

**Milky Way GPS Tracks
Sept. 24 2021**

Author: M.Luinstra	Date: 17/11/2021
Projection: GDA 2020	Report No: 2021/94
MGA 7850	Scale 1:10648







Appendix 2: Conservation Significant Flora Records (GDA94)

Taxon	Abundance	Track	Location
<i>Baeckea grandibracteata</i> subsp. Parker Range (P3)	50	Sirius/Hydra	50 J 755196 6472644
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756074 6471285
<i>Eutaxia lasiocalyx</i> (P2)	300	Sirius/Hydra	50 J 756111 6471318
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756116 6471326
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756137 6471348
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756140 6471350
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756154 6471356
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755690 6472012
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755651 6471972
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755641 6471969
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755639 6471969
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755638 6471969
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754815 6472281
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754382 6472974
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756245 6471445
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756255 6471458
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756258 6471466
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 756263 6471469
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755634 6471960
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755610 6471941
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<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755581 6471917
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<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755562 6471887
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755561 6471886
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755560 6471885
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755559 6471884
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755559 6471883
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755556 6471880
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755525 6471855
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755520 6471853
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755042 6472492
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755043 6472495
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755052 6472506
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755052 6472507
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755067 6472515

Taxon	Abundance	Track	Location
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755074 6472519
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755080 6472532
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754436 6473022
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754435 6473021
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754435 6473020
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754435 6473020
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754429 6473014
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754428 6473013
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754427 6473013
<i>Eutaxia lasiocalyx</i> (P2)	3	Sirius/Hydra	50 J 754428 6473012
<i>Eutaxia lasiocalyx</i> (P2)	4	Sirius/Hydra	50 J 754427 6473011
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754427 6473010
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754428 6473009
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754430 6473009
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754382 6472974
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754380 6472974
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754380 6472973
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754379 6472973
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754379 6472972
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754352 6472940
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754335 6472921
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754304 6472900
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754304 6472900
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754295 6472892
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754277 6472870
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754170 6472772
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754432 6473011
<i>Eutaxia lasiocalyx</i> (P2)	3	Sirius/Hydra	50 J 754690 6473020
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 754791 6472900
<i>Eutaxia lasiocalyx</i> (P2)	6	Sirius/Hydra	50 J 755084 6472542
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755154 6472403
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755161 6472398
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755205 6472328
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755204 6472329
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755203 6472328
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755202 6472326
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755204 6472323
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755246 6472233
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755246 6472228
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755246 6472227
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755287 6472080
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755288 6472077
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755288 6472076
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755295 6472067

Taxon	Abundance	Track	Location
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755295 6472066
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755296 6472065
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755295 6472064
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755297 6472062
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755297 6472062
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755298 6472061
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755301 6472057
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755302 6472055
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755301 6472053
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755301 6472053
<i>Eutaxia lasiocalyx</i> (P2)	20	Sirius/Hydra	50 J 755300 6472052
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755302 6472040
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755302 6472040
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755303 6472036
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755303 6472035
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755304 6472033
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755304 6472032
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755304 6472031
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755304 6472030
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755305 6472030
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755306 6472029
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755306 6472029
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755307 6472028
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755308 6472027
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755309 6472025
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755310 6472024
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755319 6472001
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755323 6471979
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755325 6471978
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755333 6471969
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755343 6471942
<i>Eutaxia lasiocalyx</i> (P2)	15	Sirius/Hydra	50 J 755348 6471925
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755349 6471924
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755351 6471912
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755351 6471911
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755351 6471909
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755350 6471909
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755350 6471908
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755350 6471906
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755392 6471827
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 755397 6471756
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744030 6493589
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744017 6493593
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744032 6493659

Taxon	Abundance	Track	Location
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744032 6493659
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744031 6493661
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744035 6493659
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744033 6493673
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744954 6494333
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744979 6494284
<i>Eutaxia lasiocalyx</i> (P2)	1	Sirius/Hydra	50 J 744944 6494276
<i>Hakea pendens</i> (P3)	23	Sirius/Hydra	50 J 751890 6472644
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751902 6472630
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751904 6472626
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751908 6472621
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751928 6472597
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751961 6472564
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751964 6472559
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 751967 6472556
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 752038 6472480
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 752050 6472469
<i>Hakea pendens</i> (P3)	1	Sirius/Hydra	50 J 752068 6472449
<i>Microcorys</i> sp. Forrestania (P4)	2	Sirius/Hydra	50 J 755504 6471116
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755690 6470910
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755690 6470907
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755688 6470906
<i>Microcorys</i> sp. Forrestania (P4)	2	Sirius/Hydra	50 J 755664 6470945
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755666 6470942
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755672 6470935
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755675 6470932
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755678 6470928
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755687 6470920
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755691 6470916
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754992 6471664
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754980 6471678
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754945 6471713
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754935 6471723
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754913 6471749
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762103 6460911
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762100 6460912
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762103 6460937
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762279 6460789
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762279 6460787
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 761853 6460990
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 761861 6460991
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 761863 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761866 6460991
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 761867 6460989

Taxon	Abundance	Track	Location
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761869 6460990
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761872 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761875 6460991
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 761874 6460990
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761881 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761884 6460990
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 761897 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762002 6460992
<i>Microcorys</i> sp. Forrestania (P4)	9	Leeuwin	50 J 762003 6460993
<i>Microcorys</i> sp. Forrestania (P4)	7	Leeuwin	50 J 762004 6460994
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762007 6460993
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762009 6460992
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762012 6460994
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762013 6460995
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762012 6460995
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762013 6460996
<i>Microcorys</i> sp. Forrestania (P4)	7	Leeuwin	50 J 762012 6460997
<i>Microcorys</i> sp. Forrestania (P4)	6	Leeuwin	50 J 762012 6460998
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762012 6461000
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762014 6460999
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762014 6460998
<i>Microcorys</i> sp. Forrestania (P4)	4	Leeuwin	50 J 762021 6460993
<i>Microcorys</i> sp. Forrestania (P4)	12	Leeuwin	50 J 762021 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762023 6460991
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762023 6460992
<i>Microcorys</i> sp. Forrestania (P4)	8	Leeuwin	50 J 762044 6460990
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762045 6460991
<i>Microcorys</i> sp. Forrestania (P4)	5	Leeuwin	50 J 762047 6460990
<i>Microcorys</i> sp. Forrestania (P4)	9	Leeuwin	50 J 762049 6460991
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762053 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762055 6460991
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762059 6460992
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762060 6460993
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762073 6460992
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762075 6460993
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762080 6460992
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762081 6460991
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762088 6460994
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762095 6460995
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762095 6460994
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762102 6461045
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762103 6461048
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762104 6461054
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762104 6461055

Taxon	Abundance	Track	Location
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762103 6461133
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762103 6461134
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762103 6461132
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762100 6461044
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762138 6460991
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762141 6460992
<i>Microcorys</i> sp. Forrestania (P4)	5	Leeuwin	50 J 762373 6460788
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762367 6460789
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762364 6460792
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762361 6460792
<i>Microcorys</i> sp. Forrestania (P4)	6	Leeuwin	50 J 762319 6460796
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762315 6460795
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762308 6460796
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762308 6460795
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762307 6460794
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762292 6460784
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762290 6460783
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762289 6460782
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762290 6460781
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762287 6460780
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762287 6460786
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762287 6460787
<i>Microcorys</i> sp. Forrestania (P4)	4	Leeuwin	50 J 762288 6460787
<i>Microcorys</i> sp. Forrestania (P4)	6	Leeuwin	50 J 762288 6460788
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762288 6460790
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762287 6460790
<i>Microcorys</i> sp. Forrestania (P4)	4	Leeuwin	50 J 762286 6460789
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762283 6460789
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762280 6460789
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762278 6460787
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762275 6460786
<i>Microcorys</i> sp. Forrestania (P4)	8	Leeuwin	50 J 762275 6460787
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762273 6460787
<i>Microcorys</i> sp. Forrestania (P4)	4	Leeuwin	50 J 762273 6460788
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762271 6460791
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762269 6460791
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762268 6460792
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762267 6460793
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762263 6460793
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762262 6460794
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762261 6460795
<i>Microcorys</i> sp. Forrestania (P4)	1	Leeuwin	50 J 762253 6460796
<i>Microcorys</i> sp. Forrestania (P4)	2	Leeuwin	50 J 762253 6460797
<i>Microcorys</i> sp. Forrestania (P4)	3	Leeuwin	50 J 762251 6460798

Taxon	Abundance	Track	Location
<i>Microcorys</i> sp. Forrestania (P4)	5	Leeuwin	50 J 762250 6460797
<i>Microcorys</i> sp. Forrestania (P4)	2	Sirius/Hydra	50 J 755504 6471116
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755690 6470910
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755690 6470907
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755688 6470906
<i>Microcorys</i> sp. Forrestania (P4)	2	Sirius/Hydra	50 J 755664 6470945
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755666 6470942
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755672 6470935
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755675 6470932
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755678 6470928
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755687 6470920
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 755691 6470916
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754992 6471664
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754980 6471678
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754945 6471713
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754935 6471723
<i>Microcorys</i> sp. Forrestania (P4)	1	Sirius/Hydra	50 J 754913 6471749
<i>Notisia intonsa</i> (P3)	100	Sirius/Hydra	50 J 751621 6472835
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 756184 6471398
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 755520 6471853
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754841 6472304
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754952 6472416
<i>Notisia intonsa</i> (P3)	20	Sirius/Hydra	50 J 754463 6473049
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754418 6473004
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754415 6473001
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754412 6472998
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754403 6472992
<i>Notisia intonsa</i> (P3)	1	Sirius/Hydra	50 J 754391 6472985
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755954 6471172
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756002 6471216
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756352 6471542
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756357 6471544
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756361 6471545
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756367 6471547
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756377 6471555
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756380 6471561
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756385 6471564
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756385 6471575
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 756403 6471600
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755452 6471171
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755465 6471155
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755469 6471151
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755473 6471146
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755478 6471141

Taxon	Abundance	Track	Location
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755655 6470952
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755664 6470945
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755666 6470942
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754698 6472176
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754708 6472187
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754713 6472191
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754721 6472199
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754728 6472204
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754759 6472234
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755200 6472649
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 755208 6472656
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754848 6473405
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754845 6473402
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754839 6473397
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754838 6473397
<i>Stenanthemum bremerense</i> (P4)	5	Sirius/Hydra	50 J 754835 6473392
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754834 6473391
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754834 6473390
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754833 6473391
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754830 6473389
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754828 6473388
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754822 6473381
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754822 6473380
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754821 6473380
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754820 6473379
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754819 6473378
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754816 6473377
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754814 6473374
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754805 6473366
<i>Stenanthemum bremerense</i> (P4)	4	Sirius/Hydra	50 J 754804 6473365
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754802 6473365
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754801 6473364
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754799 6473362
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754795 6473359
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754794 6473358
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754793 6473357
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754793 6473356
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754792 6473355
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754791 6473355
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754790 6473353
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754789 6473353
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754787 6473351
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754781 6473343
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754780 6473342

Taxon	Abundance	Track	Location
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754771 6473334
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754770 6473333
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754765 6473330
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754765 6473329
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754764 6473327
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754758 6473323
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754757 6473322
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754757 6473321
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754757 6473320
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754753 6473316
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754751 6473315
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754750 6473314
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754748 6473314
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754748 6473313
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754746 6473309
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754745 6473308
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754743 6473306
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754743 6473305
<i>Stenanthemum bremerense</i> (P4)	4	Sirius/Hydra	50 J 754742 6473304
<i>Stenanthemum bremerense</i> (P4)	3	Sirius/Hydra	50 J 754741 6473303
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754739 6473303
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754737 6473300
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754735 6473300
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754733 6473299
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754731 6473297
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754725 6473292
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754723 6473291
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754722 6473289
<i>Stenanthemum bremerense</i> (P4)	2	Sirius/Hydra	50 J 754718 6473283
<i>Stenanthemum bremerense</i> (P4)	1	Sirius/Hydra	50 J 754716 6473283
<i>Teucrium diabolicum</i> (P3)	1500	Sirius/Hydra	50 J 754482 6473067
<i>Teucrium diabolicum</i> (P3)	23	Sirius/Hydra	50 J 754148 6472748

Appendix 3: Priority Flora Impact Assessment

Taxon	Priority Listing	Project Area	No. plants within survey area	Parker Dome GDP Phase 2-Option 1			Parker Dome GDP Phase 2-Option 2			Parker Dome GDP Phase 2-Option 3		
				No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3	Sirius/ Hydra	50	0	340	0.00	0	340	0.00	0	340	0.00
<i>Bossiaea flexuosa</i>	P3	Milky Way	8	2	44	4.55	2	44	4.55	2	44	4.55
<i>Eutaxia lasiocalyx</i>	P2	Sirius/ Hydra	894	0	1,047	0.00	0	1,047	0.00	0	1,047	0.00
<i>Hakea pendens</i>	P3	Sirius/ Hydra	33	33	6,816	0.48	33	6,816	0.48	33	6,816	0.48
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	Sirius/ Hydra Leeuwin	265	217	15,770	1.38	217	15,770	1.38	217	15,770	1.38
<i>Notisia intonsa</i>	P3	Sirius/ Hydra	129	100	289	34.60	100	289	34.60	100	289	34.60
<i>Stenanthemum bremerense</i>	P4	Sirius/ Hydra	140	0	40,266	0.00	0	40,266	0.00	0	40,266	0.00
<i>Stylidium sejunctum</i>	P3	Leeuwin	10	10	2,264	0.44	10	2,264	0.44	10	2,264	0.44
<i>Teucrium diabolicum</i>	P3	Sirius/ Hydra	11,523	0	27,676	0.00	0	27,676	0.00	0	27,676	0.00

Taxon	Priority Listing	Project Area	No. plants within survey area	Parker Dome CMP 2021 compilation-Option 1			Parker Dome CMP 2021 compilation-Option 2			Parker Dome CMP 2021 compilation-Option 3		
				No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3	Sirius/ Hydra	50	50	340	14.71	0	340	0.00	0	340	0.00
<i>Bossiaea flexuosa</i>	P3	Milky Way	8	0	44	0.00	0	44	0.00	0	44	0.00
<i>Eutaxia lasiocalyx</i>	P2	Sirius/ Hydra	894	391	1,047	37.34	8	1,047	0.76	139	1,047	13.28
<i>Hakea pendens</i>	P3	Sirius/ Hydra	33	0	6,816	0.00	0	6,816	0.00	0	6,816	0.00
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	Sirius/ Hydra Leeuwin	265	174	15,770	1.10	33	15,770	0.21	33	15,770	0.21
<i>Notisia intonsa</i>	P3	Sirius/ Hydra	129	29	289	10.03	0	289	0.00	0	289	0.00
<i>Stenanthemum bremerense</i>	P4	Sirius/ Hydra	140	140	40,266	0.35	5	40,266	0.01	5	40,266	0.01
<i>Stylidium sejunctum</i>	P3	Leeuwin	10	0	2,264	0.00	0	2,264	0.00	0	2,264	0.00
<i>Teucrium diabolicum</i>	P3	Sirius/ Hydra	11,523	1,523	27,676	5.50	1500	27,676	5.42	0	27,676	0.00

Taxon	Priority Listing	Project Area	No. plants within survey area	Parker Dome GDP Phase 2 & CMP 2021 compilation-Option 1			Parker Dome GDP Phase 2 & CMP 2021 compilation-Option 2			Parker Dome GDP Phase 2 & CMP 2021 compilation-Option 3		
				No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations	No. plants proposed to be impacted	No. plants in local area (within 100km)	% impact on local populations
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3	Sirius/ Hydra	50	50	340	14.71	0	340	0.00	0	340	0.00
<i>Bossiaea flexuosa</i>	P3	Milky Way	8	2	44	4.55	2	44	4.55	2	44	4.55
<i>Eutaxia lasiocalyx</i>	P2	Sirius/ Hydra	894	391	1,047	37.34	8	1,047	0.76	139	1,047	13.28
<i>Hakea pendens</i>	P3	Sirius/ Hydra	33	33	6,816	0.48	33	6,816	0.48	33	6,816	0.48
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	Sirius/ Hydra Leeuwin	265	391	15,770	2.48	250	15,770	1.59	250	15,770	1.59
<i>Notisia intonsa</i>	P3	Sirius/ Hydra	129	129	289	44.64	100	289	34.60	100	289	34.60
<i>Stenanthemum bremerense</i>	P4	Sirius/ Hydra	140	140	40,266	0.35	5	40,266	0.01	5	40,266	0.01
<i>Stylidium sejunctum</i>	P3	Leeuwin	10	10	2,264	0.44	10	2,264	0.44	10	2,264	0.44
<i>Teucrium diabolicum</i>	P3	Sirius/ Hydra	11,523	1,523	27,676	5.50	1,500	27,676	5.42	0	27,676	0.00

Appendix 4: Conservation Significant Flora Records-Proposed to be impacted (GDA94)

GDP Phase 2: Option 1-3					
Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Bossiaea flexuosa</i>	P3	1	50 J	767,298	6,466,644
<i>Bossiaea flexuosa</i>	P3	1	50 J	767,320	6,466,633
<i>Hakea pendens</i>	P3	1	50 J	751,902	6,472,630
<i>Hakea pendens</i>	P3	1	50 J	751,904	6,472,626
<i>Hakea pendens</i>	P3	1	50 J	751,908	6,472,621
<i>Hakea pendens</i>	P3	1	50 J	751,928	6,472,597
<i>Hakea pendens</i>	P3	1	50 J	751,961	6,472,564
<i>Hakea pendens</i>	P3	1	50 J	751,964	6,472,559
<i>Hakea pendens</i>	P3	1	50 J	751,967	6,472,556
<i>Hakea pendens</i>	P3	1	50 J	752,038	6,472,480
<i>Hakea pendens</i>	P3	1	50 J	752,050	6,472,469
<i>Hakea pendens</i>	P3	1	50 J	752,068	6,472,449
<i>Hakea pendens</i>	P3	23	50 J	751,890	6,472,644
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,002	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,009	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	12	50 J	762,021	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,023	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,023	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	8	50 J	762,044	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,045	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	5	50 J	762,047	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	9	50 J	762,049	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,053	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,055	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,059	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,073	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,075	6,460,993
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,080	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,081	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,138	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,141	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,102	6,461,045
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,100	6,461,044
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,103	6,461,048
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,104	6,461,054
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,104	6,461,055
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	100	50 J	752,719	6,471,761
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,103	6,461,132
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,103	6,461,134
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,103	6,461,133
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	761,853	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	761,861	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	761,863	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,866	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	761,867	6,460,989
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,869	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,872	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,875	6,460,991

GDP Phase 2: Option 1-3					
Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	761,874	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,881	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,884	6,460,990
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	761,897	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,053	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,055	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,059	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,060	6,460,993
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,073	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,075	6,460,993
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,080	6,460,992
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,081	6,460,991
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,088	6,460,994
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,095	6,460,995
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,095	6,460,994
<i>Notisia intonsa</i>	P3	100	50 J	751,621	6,472,835
<i>Styloidium sejunctum</i>	P3	10	50 J	762,270	6,460,956

CMP 2021 compilation-Option 1					
Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Baeckea grandibracteata</i> subsp. Parker Range (K. Newbey 9270)	P3	50	50 J	755,196	6,472,644
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,690	6,472,012
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,154	6,471,356
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,520	6,471,853
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,525	6,471,855
<i>Eutaxia lasiocalyx</i>	P2	6	50 J	755,084	6,472,542
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,634	6,471,960
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,641	6,471,969
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,566	6,471,894
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,567	6,471,896
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,380	6,472,974
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,382	6,472,974
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,379	6,472,973
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,380	6,472,973
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,382	6,472,974
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,170	6,472,772
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,304	6,472,900
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,379	6,472,972
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,295	6,472,892
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,304	6,472,900
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,074	6,471,285
<i>Eutaxia lasiocalyx</i>	P2	300	50 J	756,111	6,471,318
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,116	6,471,326
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,137	6,471,348
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,140	6,471,350

CMP 2021 compilation-Option 1

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,154	6,471,356
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,651	6,471,972
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,641	6,471,969
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,639	6,471,969
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,638	6,471,969
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,815	6,472,281
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,245	6,471,445
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,255	6,471,458
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,258	6,471,466
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	756,263	6,471,469
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,634	6,471,960
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,610	6,471,941
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,604	6,471,935
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,590	6,471,927
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,586	6,471,924
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,581	6,471,917
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,581	6,471,917
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,580	6,471,915
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,568	6,471,903
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,567	6,471,896
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,566	6,471,894
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,562	6,471,887
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,561	6,471,886
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,560	6,471,885
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,559	6,471,884
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,559	6,471,883
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,556	6,471,880
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,525	6,471,855
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,520	6,471,853
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,042	6,472,492
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,043	6,472,495
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,052	6,472,506
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,052	6,472,507
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,067	6,472,515
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,074	6,472,519
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,080	6,472,532
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,436	6,473,022
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,435	6,473,021
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,435	6,473,020
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,435	6,473,020
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,429	6,473,014
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,428	6,473,013
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,427	6,473,013
<i>Eutaxia lasiocalyx</i>	P2	3	50 J	754,428	6,473,012
<i>Eutaxia lasiocalyx</i>	P2	4	50 J	754,427	6,473,011
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,427	6,473,010
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,428	6,473,009
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,430	6,473,009
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,352	6,472,940
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,335	6,472,921

CMP 2021 compilation-Option 1

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,277	6,472,870
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,432	6,473,011
<i>Eutaxia lasiocalyx</i>	P2	6	50 J	755,084	6,472,542
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,980	6,471,678
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,992	6,471,664
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,935	6,471,723
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,945	6,471,713
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,980	6,471,678
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,992	6,471,664
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	755,504	6,471,116
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,913	6,471,749
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,691	6,470,916
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,691	6,470,916
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	755,504	6,471,116
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,935	6,471,723
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,945	6,471,713
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	754,913	6,471,749
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,273	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,273	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,367	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	5	50 J	762,373	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,103	6,460,911
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,103	6,460,937
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,100	6,460,912
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,280	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,283	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	8	50 J	762,275	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,278	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,288	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	6	50 J	762,288	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,286	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	5	50 J	762,373	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,367	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,364	6,460,792
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,361	6,460,792
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	6	50 J	762,319	6,460,796
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,315	6,460,795

CMP 2021 compilation-Option 1

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,308	6,460,796
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,308	6,460,795
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,307	6,460,794
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,292	6,460,784
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,290	6,460,783
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,289	6,460,782
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,290	6,460,781
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,287	6,460,780
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,786
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,288	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	6	50 J	762,288	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,288	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,286	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,283	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,280	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,278	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,275	6,460,786
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	8	50 J	762,275	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,273	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,273	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,271	6,460,791
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,269	6,460,791
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,268	6,460,792
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,267	6,460,793
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,263	6,460,793
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,262	6,460,794
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,261	6,460,795
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,253	6,460,796
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,253	6,460,797
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,251	6,460,798
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	5	50 J	762,250	6,460,797
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,690	6,470,910
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,690	6,470,907
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,688	6,470,906
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,687	6,470,920
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,691	6,470,916
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,690	6,470,910
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,690	6,470,907
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,688	6,470,906
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,687	6,470,920
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,691	6,470,916
<i>Notisia intonsa</i>	P3	20	50 J	754,463	6,473,049
<i>Notisia intonsa</i>	P3	1	50 J	754,391	6,472,985
<i>Notisia intonsa</i>	P3	1	50 J	754,403	6,472,992
<i>Notisia intonsa</i>	P3	1	50 J	754,952	6,472,416
<i>Notisia intonsa</i>	P3	1	50 J	755,520	6,471,853
<i>Notisia intonsa</i>	P3	1	50 J	756,184	6,471,398
<i>Notisia intonsa</i>	P3	1	50 J	755,520	6,471,853

CMP 2021 compilation-Option 1

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Notisia intonsa</i>	P3	1	50 J	754,841	6,472,304
<i>Notisia intonsa</i>	P3	1	50 J	754,412	6,472,998
<i>Notisia intonsa</i>	P3	1	50 J	754,415	6,473,001
<i>Notisia intonsa</i>	P3	1	50 J	754,418	6,473,004
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,352	6,471,542
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,385	6,471,575
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,759	6,472,234
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,728	6,472,204
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,200	6,472,649
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,452	6,471,171
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,469	6,471,151
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,465	6,471,155
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,708	6,472,187
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,698	6,472,176
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,721	6,472,199
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,713	6,472,191
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,478	6,471,141
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,473	6,471,146
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,666	6,470,942
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,655	6,470,952
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,954	6,471,172
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,002	6,471,216
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,352	6,471,542
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,357	6,471,544
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,361	6,471,545
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,367	6,471,547
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,377	6,471,555
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,380	6,471,561
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,385	6,471,564
<i>Stenanthemum bremerense</i>	P4	1	50 J	756,403	6,471,600
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,200	6,472,649
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,208	6,472,656
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,848	6,473,405
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,845	6,473,402
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,839	6,473,397
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,838	6,473,397
<i>Stenanthemum bremerense</i>	P4	5	50 J	754,835	6,473,392
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,834	6,473,391
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,834	6,473,390
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,833	6,473,391
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,830	6,473,389
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,828	6,473,388
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,822	6,473,381
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,822	6,473,380
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,821	6,473,380
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,820	6,473,379
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,819	6,473,378
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,816	6,473,377
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,814	6,473,374
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,805	6,473,366

CMP 2021 compilation-Option 1

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Stenanthemum bremerense</i>	P4	4	50 J	754,804	6,473,365
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,802	6,473,365
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,801	6,473,364
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,799	6,473,362
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,795	6,473,359
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,794	6,473,358
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,793	6,473,357
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,793	6,473,356
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,792	6,473,355
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,791	6,473,355
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,790	6,473,353
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,789	6,473,353
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,787	6,473,351
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,781	6,473,343
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,780	6,473,342
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,771	6,473,334
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,770	6,473,333
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,765	6,473,330
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,765	6,473,329
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,764	6,473,327
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,758	6,473,323
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,757	6,473,322
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,757	6,473,321
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,757	6,473,320
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,753	6,473,316
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,751	6,473,315
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,750	6,473,314
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,748	6,473,314
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,748	6,473,313
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,746	6,473,309
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,745	6,473,308
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,743	6,473,306
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,743	6,473,305
<i>Stenanthemum bremerense</i>	P4	4	50 J	754,742	6,473,304
<i>Stenanthemum bremerense</i>	P4	3	50 J	754,741	6,473,303
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,739	6,473,303
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,737	6,473,300
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,735	6,473,300
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,733	6,473,299
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,731	6,473,297
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,725	6,473,292
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,723	6,473,291
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,722	6,473,289
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,718	6,473,283
<i>Stenanthemum bremerense</i>	P4	1	50 J	754,716	6,473,283
<i>Teucrium diabolicum</i>	P3	1500	50 J	754,482	6,473,067
<i>Teucrium diabolicum</i>	P3	23	50 J	754,148	6,472,748

CMP 2021 compilation-Option 2

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,295	6,472,892
<i>Eutaxia lasiocalyx</i>	P2	6	50 J	755,084	6,472,542
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,690	6,472,012
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,280	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,283	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,278	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,288	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	6	50 J	762,288	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,286	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,308	6,460,795
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,308	6,460,796
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,307	6,460,794
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,748	6,473,314
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,666	6,470,942
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,655	6,470,952
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,664	6,470,945
<i>Teucrium diabolicum</i>	P3	1500	50 J	754,482	6,473,067

CMP 2021 compilation-Option 3

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	6	50 J	755,084	6,472,542
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,154	6,472,403
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,161	6,472,398
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,205	6,472,328
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,204	6,472,329
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,203	6,472,328
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,246	6,472,233
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,246	6,472,228
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,246	6,472,227
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,287	6,472,080
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,288	6,472,077
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,288	6,472,076
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,302	6,472,040
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,302	6,472,040
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,303	6,472,036
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,303	6,472,035

CMP 2021 compilation-Option 3

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,033
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,032
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,031
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,305	6,472,030
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,306	6,472,029
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,306	6,472,029
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,307	6,472,028
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,308	6,472,027
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,309	6,472,025
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,310	6,472,024
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,319	6,472,001
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,325	6,471,978
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,343	6,471,942
<i>Eutaxia lasiocalyx</i>	P2	15	50 J	755,348	6,471,925
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,349	6,471,924
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,392	6,471,827
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,397	6,471,756
<i>Eutaxia lasiocalyx</i>	P2	3	50 J	754,690	6,473,020
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,791	6,472,900
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,205	6,472,328
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,204	6,472,329
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,203	6,472,328
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,202	6,472,326
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,204	6,472,323
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,287	6,472,080
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,288	6,472,077
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,288	6,472,076
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,295	6,472,067
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,295	6,472,066
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,296	6,472,065
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,295	6,472,064
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,297	6,472,062
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,297	6,472,062
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,298	6,472,061
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,301	6,472,057
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,302	6,472,055
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,301	6,472,053
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,301	6,472,053
<i>Eutaxia lasiocalyx</i>	P2	20	50 J	755,300	6,472,052
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,302	6,472,040
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,302	6,472,040
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,303	6,472,036
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,303	6,472,035
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,033
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,032
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,031
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,304	6,472,030
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,305	6,472,030
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,306	6,472,029
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,306	6,472,029

CMP 2021 compilation-Option 3

Taxon	Priority Listing	Abundance	Zone	Easting	Northing
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,307	6,472,028
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,308	6,472,027
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,309	6,472,025
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,310	6,472,024
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,319	6,472,001
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,323	6,471,979
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,325	6,471,978
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,333	6,471,969
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,343	6,471,942
<i>Eutaxia lasiocalyx</i>	P2	15	50 J	755,348	6,471,925
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,349	6,471,924
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,351	6,471,912
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,351	6,471,911
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,351	6,471,909
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,350	6,471,909
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,350	6,471,908
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,350	6,471,906
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	754,295	6,472,892
<i>Eutaxia lasiocalyx</i>	P2	1	50 J	755,690	6,472,012
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,678	6,470,928
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,675	6,470,932
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,672	6,470,935
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	755,666	6,470,942
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,279	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,280	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,283	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,278	6,460,787
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	3	50 J	762,288	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	6	50 J	762,288	6,460,788
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	4	50 J	762,286	6,460,789
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,287	6,460,790
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	2	50 J	762,308	6,460,795
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,308	6,460,796
<i>Microcorys</i> sp. Forrestania (V. English 2004)	P4	1	50 J	762,307	6,460,794
<i>Stenanthemum bremerense</i>	P4	2	50 J	754,748	6,473,314
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,666	6,470,942
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,655	6,470,952
<i>Stenanthemum bremerense</i>	P4	1	50 J	755,664	6,470,945