
ALCOA OF AUSTRALIA LIMITED

PINJARRA ALUMINA REFINERY REVISED PROPOSAL

DETAILED FLORA AND VEGETATION SURVEY

FOR HUNTLY MINE – MYARA NORTH

Prepared By



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LIST OF ABBREVIATIONS

BAM Act:	<i>Biosecurity and Agriculture Management Act 2007</i> (WA)
BC Act:	<i>Biodiversity Conservation Act 2016</i> (WA)
BOM:	Bureau of Meteorology
DAWE:	Department of Agriculture, Water and the Environment
DBCA:	Department of Biodiversity, Conservation and Attractions
DPIRD:	Department of Primary Industries and Regional Development
EP Act:	<i>Environmental Protection Act 1986</i> (WA)
EPA:	Environmental Protection Authority
EPBC Act:	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Commonwealth)
MN:	Myara North survey area
IBRA:	Interim Biogeographical Regionalisation for Australia
PEC:	Priority ecological community
PMST:	Protected Matters Search Tool
TEC:	Threatened ecological community
TPFL:	Threatened and Priority Flora (WA Herbarium)
WAH:	Western Australian Herbarium (PERTH)

EXECUTIVE SUMMARY

Alcoa of Australia Limited (Alcoa) is proposing to increase production at the Pinjarra Alumina Refinery by 5 per cent from 5.0 Million tonnes per annum (Mtpa) to 5.25 Mtpa and **transition** the Huntly Bauxite Mine to the proposed Myara North and Holyoake mine regions (the Proposal). The Proposal is located in the Peel Region of Western Australia (WA), approximately 100 km southeast of Perth.

The Huntly Mine is located predominantly within the Shires of Murray, Serpentine-Jarrahdale and Boddington within the Peel Region of Western Australia. The Myara North mine area is south east of the town of Jarrahdale, and the Holyoake mine area is east of Dwellingup.

The Proposal will be subject to environmental impact assessment under Part IV of the WA *Environmental Protection Act 1986* (EP Act), and the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). The environmental impact assessment will be via a Public Environmental Review (PER).

Mattiske Consulting Pty Ltd (Mattiske) was commissioned in May 2020 by GHD on behalf of Alcoa of Australia Ltd (Alcoa) to conduct a detailed flora and vegetation survey of the Myara North (MN) mine region. The MN survey area consists of the Myara North mine Development Envelope (DE) and adjacent conveyor and haul road corridors that connect the DE to the existing Huntly mine operations in the Myara North region.

Various databases were used to identify the possible occurrence of flora (including introduced, threatened and priority taxa) and threatened and priority ecological communities within the MN survey area. Vegetation plots established as part of this assessment were monitored in the spring months. Baseline vegetation grid mapping and targeted searches were completed over a much more diverse and spatially complex area than the permanent plots (i.e. landforms such as the slopes, ridges, swamps, broad valley systems, and outcrops), and as such, the six month monitoring window was considered comprehensive.

The MN survey area lies within the Interim Biogeographical Regionalisation for Australia (IBRA), with the survey area falling within the Northern Jarrah Forest subregion (JF1) of the Jarrah Forest (JAF) Region (DAWE 2020c). The geology of the region comprises lateritic duricrust, with drainage lines and occasional granite hills. The Northern Jarrah Forest subregion is characterised by Jarrah (*Eucalyptus marginata*) forest on ironstone gravels and Marri-Wandoo (*Corymbia calophylla* - *Eucalyptus wandoo*) woodlands on loamy soils, with sclerophyll understoreys.

Parts of the MN survey area and the nearby areas have previously been surveyed by E.M. Mattiske and Associates (Mattiske 1991 to 1993) and Mattiske Consulting Pty Ltd (Mattiske 1994 and 2019) at both a detailed level of flora studies and site-vegetation type mapping as well as at a regional mapping scale as part of the System 6 studies (Heddle et al. 1980) and the Regional Forest Agreement (RFA) project by Mattiske and Havel (1998). In addition, more local flora and vegetation values have been studied over some 40 years for a variety of clients including studies in the Wungong catchment north of the MN survey area (Mattiske Consulting 2009b, 2011b), the nearby Mt Cooke and 31 Mile Brook by Havel (1975a and 1975b), the recent re-mapping of 31 Mile Brook (Mattiske Consulting 2011c), the extensive mapping for Alcoa within and near the MN survey area (E.M. Mattiske and Associates 1991 to 1993) and Mattiske Consulting Pty Ltd (1994 and 2019).

Potential Flora Values

The desktop assessment which was undertaken on the basis of a 20km radius using NatureMap (DBCA 2007-) and the Protected Matters Search Tool (DAWE 2020b) and a review of previous studies both within and near the MN survey area (E.M. Mattiske and Associates 1991 -1993 and Mattiske Consulting Pty Ltd (1994 – 2019).

Flora and Vegetation – Myara North Survey Area

The key findings from the desktop assessment were:

- . 1454 vascular plant taxa, representative of 412 genera and 108 families, have the potential to occur within the MN survey area. The dominant families were Fabaceae (175 taxa), Proteaceae (121 taxa) and Myrtaceae (111 taxa). The dominant genera were *Acacia* (61 taxa), *Stylidium* (45 taxa) and *Drosera* (37 taxa).
- . 17 threatened flora species and 49 priority flora species have the potential to occur in the MN survey area. These potential threatened and priority flora species were also related to underlying site preferences. The latter was based on information collated from Florabase (WAH 1998-), vegetation complexes and where available site-vegetation types. Several threatened species have only been recorded on the Swan Coastal Plain within the 20km radius and consequently are unlikely to occur in the MN survey area. The majority of potential Priority flora species were recorded in the main areas on granite outcrops (e.g. Mt Cooke, Mr Windsor and Mt Wells) to the north and east, and the eastern Jarrah forest in lower rainfall areas.
- . A total of 192 introduced taxa have the potential to occur in the MN survey area. Ten of the introduced species are declared pest organisms pursuant to section 22 of the BAM Act. A further four of the introduced species are declared pest organisms pursuant to section 22 of the BAM Act, and are also listed as prohibited organisms pursuant to section 12 of the BAM Act. Ten of the introduced taxa are listed Weeds of National Significance. Another 12 of the introduced plant taxa with the potential to occur in the MN survey area have both High ecological impact and Rapid invasiveness ratings.

Recorded Flora Values

The survey efforts were undertaken over multiple years and seasons and therefore the coverage of the flora was considered to exceed the EPA (2016a and 2016b) guidance statements expectations. The flora and vegetation values were recorded in vegetation plots (20m x 20m with 20 x 2m x 2m quadrats within each plot), in regular recording sites (20m radius for trees and site parameters and 5m radius for understorey species in line with the methods defined in Havel (1975a and 1975b) and as used in previous site-vegetation type studies) and during targeted searches of the flora in the different landforms and soils. The vegetation plots were established in the spring months, the 2020 recordings on the grids was undertaken over a six month period and the targeted flora searches were undertaken over the six month period in all of the different landforms and soils.

The key findings from the detailed flora survey were:

- . A total of 681 vascular taxa was recorded in the MN survey area and the adjacent areas.
 - . No Threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DAWE (2020a) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2018a) were recorded during the detailed flora and vegetation survey of the MN survey area. The lack of threatened flora was a key outcome of the survey effort and as such reinforces the desktop assessment which found a moderate to low likelihood of threatened flora occurrence on the MN survey area.
 - . Fourteen Priority flora species as listed by DBCA (2018c) have been recorded in the MN survey area.
 - . During 2020, four Priority species were recorded within the specific MN survey area, namely *Acacia drummondii* subsp. *affinis* (P3), *Acacia horridula* (P3), *Conospermum scaposum* (P3) and *Stylidium scabridum* (P4).
 - . Additional Priority flora species (*Acacia oncinophylla* subsp. *ocinophylla*, *Boronia tenuis*, *Bossiaea modesta*, *Banksia recurvitylis*, *Grevillea crowleyae*, *Grevillea manglesii* subsp. *dissectifolia* and
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Flora and Vegetation – Myara North Survey Area

Grevillea pimeleoides) were recorded on the fringes of the MN survey area and in nearby flora and vegetation studies in previous studies.

The Priority flora species occur on the varying landform and soil groupings, namely - 41.9% in swamps, 58.1% on or near granite outcrops and 61.3% with lateritic gravelly soils.

58 introduced were recorded in the MN assessment. One of the introduced species is a declared pest organism pursuant to section 22 of the BAM Act, namely: **Gomphocarpus fruticosus* (DPIRD 2020). None of the introduced species are listed as a Weed of National Significance (WONS) (DAWE 2020d). Of the 58 introduced species, 8 have been ranked as High Ecological Impact by DPAW (2014) and 24 have been ranked as Rapid Invasiveness by DPAW (2014). **Gomphocarpus fruticosus* is associated with cleared and degraded, **Leptospermum laevigatum* is associated with areas near previous disturbance and tracks, **Watsonia meriana* is associated with valley floors and creek lines. The remainder are associated with degraded and completely degraded areas and fringes of road and tracks.

A key characteristic of the survey area is the shift in landforms and soils from west to east across the MN survey area and the latter is reflected in the change in the dominance of flora species that tolerate the broader valley systems, swamps and the outcrop areas. The summary of results from the plots and the recording sites as summarized by the site-vegetation types reflects this shift from species in the lateritic slopes and ridges and the broader valleys and outcrops.

Potential Vegetation Values

Based on the 20km radius database search, there are four threatened ecological communities (TECs) listed at Commonwealth level pursuant to sections 181 and 182 of the *EPBC Act* and listed by the DAWE (2020e) or at State level pursuant to Part 2 of the *BC Act* and as listed by DBCA (2018b) with the potential to occur within the MN survey area. None of the above mentioned TECs would occur in the MN survey area, as these threatened ecological communities are restricted to the Swan Coastal Plain and as such do not extend into the Jarrah forest area on the Darling Range associated with the Darling Plateau.

There is one botanical PEC, listed at State level (Granite Communities of the northern Jarrah Forest), which has been designated within the MN survey area. There is a potential that the site-vegetation types associated with granite outcrops (site-vegetation types G and R as defined by Mattiske utilising the definitions of Havel (1975a and 1975b) will have affinities with the PEC. Clarification of the latter affinities necessitated comparisons with the granite areas studied by Markey (1997) on the northern Darling Scarp (pers comm. J. Pryde DBCA). In this context there are some species that reflect the presence of exposed or shallow granite outcrops; however these species tend to occur on wider areas of granites and the differentiation on whether all granite areas in the southwest should be aligned is open to interpretation.

Recorded Vegetation Values

The survey efforts were undertaken over multiple years and seasons and the coverage of the vegetation was considered to exceed the EPA (2016a and 2016b) guidance statements expectations. The vegetation values were recorded in vegetation plots (20m x 20m with 20 x 2m x 2m quadrats within each plot), in regular recording sites and from aerial photographic imagery interpretations. The vegetation plots were established in the spring months, the 2020 recordings on the grids was undertaken over a six month period.

The key findings from the detailed vegetation survey were:

- 32 site-vegetation types were defined and mapped on the MN survey area. The delineation of the site-vegetation types was based on the interpretation of the ranking data for the flora species and the underlying landforms and soils.

- A range of analyses were on the vegetation plot data and a reliance was placed on keystone species as defined by Havel (1975a and 1975b) and as modified by Mattiske for the northern Jarrah forest. The continuum nature of the vegetation was reflected in the findings for the site-

vegetation types which occur on the lateritic slopes and ridges and the more distinct communities on the swamps and broader valley systems.

The site-vegetation types were subdivided into six main groupings associated with site conditions which reflected landforms, soils and soil moisture levels. The site-vegetation types on the extreme sites such as granite outcrops and broad valley systems and swamps differ markedly from the forest and woodland areas on the slopes and ridges.

No Threatened Ecological Communities (TECs) occur in the MN survey area.

The only botanical Priority Ecological Community has some affinities with the values in G and R (and variants). There is a lack of clarity on the values that determine the presence of the Priority Ecological Community other than the association with the outcrops. On a local scale the outcrop areas are locally very variable from lithic complexes to heaths to open woodlands. The species as recorded by Markey (1997), on the granite outcrops to the west on the Darling Scarp, were compared with those recorded in the site-vegetation types G and R by Mattiske Consulting team in 2020. Of these the main keystone species include *Calothamnus quadrifidus*, *Borya sphaerocephala*, *Grevillea bipinnatifida*, *Allocasuarina humilis* and *Babingtonia camphorosmae*. Of these species the initial four species are associated with shallow soils and granite outcrops. The *Babingtonia camphorosmae* is associated with seasonally moister soils which may occur in a range of site conditions including near run-off areas near granite outcrops.

A few areas supporting patches of larger trees were designated as potential fauna habitats. These sites supported a mixture of trees with a diameter at breast height greater than 50cm.

Potential Groundwater Dependent Ecosystems

The potential groundwater dependent ecosystems were determined on the basis of the vegetation complexes and when the more detailed site-vegetation type mapping was available the initial interpretations were updated. The dominant and key indicator species which occur in moister and wetter soils on the swamps and lower slopes of the valley systems underpinned the selection of the potential groundwater dependent ecosystems.

Old Growth Forest Areas

State Government mapping indicates that there is a number of patches of Old Growth Forest occurring in the area surrounding the MN survey area, with some occurring within 10 km of the survey area boundary to the north, south, east and west. A small section of Old Growth Forest intersects the survey area in the central part of the south-western boundary of the MN survey area. The survey did not identify any additional areas within the survey area that could potentially be un-mapped Old Growth Forest, based on Department of Parks and Wildlife criteria (DPAW 2017).

Vegetation Condition

The vegetation condition rating was adapted from the EPA (2016b) guidance statement and the earlier work by Keighery (1994) and Trudgen scale (1988), Appendix A5. The condition in the MN survey area was determined on the basis of previous harvesting (DBCA 2020 supplied data), dieback mapping (Glevan Consulting 2020), site-vegetation types as defined and mapped by Mattiske Consulting Pty Ltd, detailed data on logging debris, residual stumps and numbers and types of larger trees (>50cm Diameter at Breast Height). Whilst some forest areas were identified with patches of larger trees that have the potential values of some areas for fauna habitats. Less stumps and logging activities were recorded within the swamp areas and on lower sandier soils in the broader valley types; although dieback disease from *Phytophthora cinnanomi* has influenced many of the valley systems in the MN survey area (Glevan Consulting 2020).

1. INTRODUCTION

Alcoa of Australia Limited (Alcoa) is proposing to increase production at the Pinjarra Alumina Refinery by 5 percent from 5.0 Mtpa to 5.25 Mtpa and **transition** the Huntly Bauxite Mine to the proposed Myara North and Holyoake mine regions (the Proposal). The Proposal is located in the Peel Region of Western Australia (WA), approximately 100 km southeast of Perth.

The Huntly Mine is located predominantly within the Shires of Murray, Serpentine-Jarrahdale and Boddington within the Peel Region of Western Australia. The Myara North mine area is south east of the town of Jarrahdale, and the Holyoake mine area is east of Dwellingup.

The Proposal will be subject to environmental impact assessment under Part IV of the WA *Environmental Protection Act 1986* (EP Act), and the *Environment Protection Biodiversity Conservation Act 1999* (EPBC Act). The environmental impact assessment will be via a Public Environmental Review (PER).

Mattiske Consulting Pty Ltd was commissioned in May 2020 by GHD on behalf of Alcoa of Australia Ltd (Alcoa) to conduct a detailed flora and vegetation survey of the MN region.

Location and Scope of Proposal

1.1.

The MN survey area lies within tenement ML 1SA. The MN survey area consists of the MN mine Development Envelope (DE) and adjacent conveyor and haul road corridors that connect the DE to the existing Huntly mine operations at the Myara region, Figure 1. The MN survey area lies within the Northern Jarrah Forest subregion of the Southwest Botanical Province (Beard 1990), approximately 50 km south east of Perth, WA (Figure 1).

Parts of this region have previously been surveyed by Mattiske Consulting Pty Ltd between 1991 and 2020 at both a detailed level of site-vegetation type mapping as well as at a regional mapping scale as part of the Regional Forest Agreement (RFA) project by Mattiske and Havel (1998). These studies built on the earlier work of Havel (1975a and 1975b) in the northern Jarrah forest.

This report describes the potential and recorded flora and vegetation values of the MN survey area and places them within a local and regional context.

Environmental Legislation and Guidelines

1.2.

The following key Commonwealth (federal) legislation relevant to this survey is the:

- *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The following key Western Australian (state) legislation relevant to this survey includes the:

- *Biodiversity Conservation Act 2016* (BC Act);
- *Biosecurity and Agriculture Management Act 2007* (BAM Act) and *Regulations 2013*;
- *Environmental Protection Act 1986* (EP Act); and
- *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*

Furthermore, key Western Australian guidelines relevant to this survey are the:

- *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority [EPA] 2016a); and
 - *Technical Guidance – Flora and vegetation surveys for environmental impact assessment* (EPA 2016b); and.
-

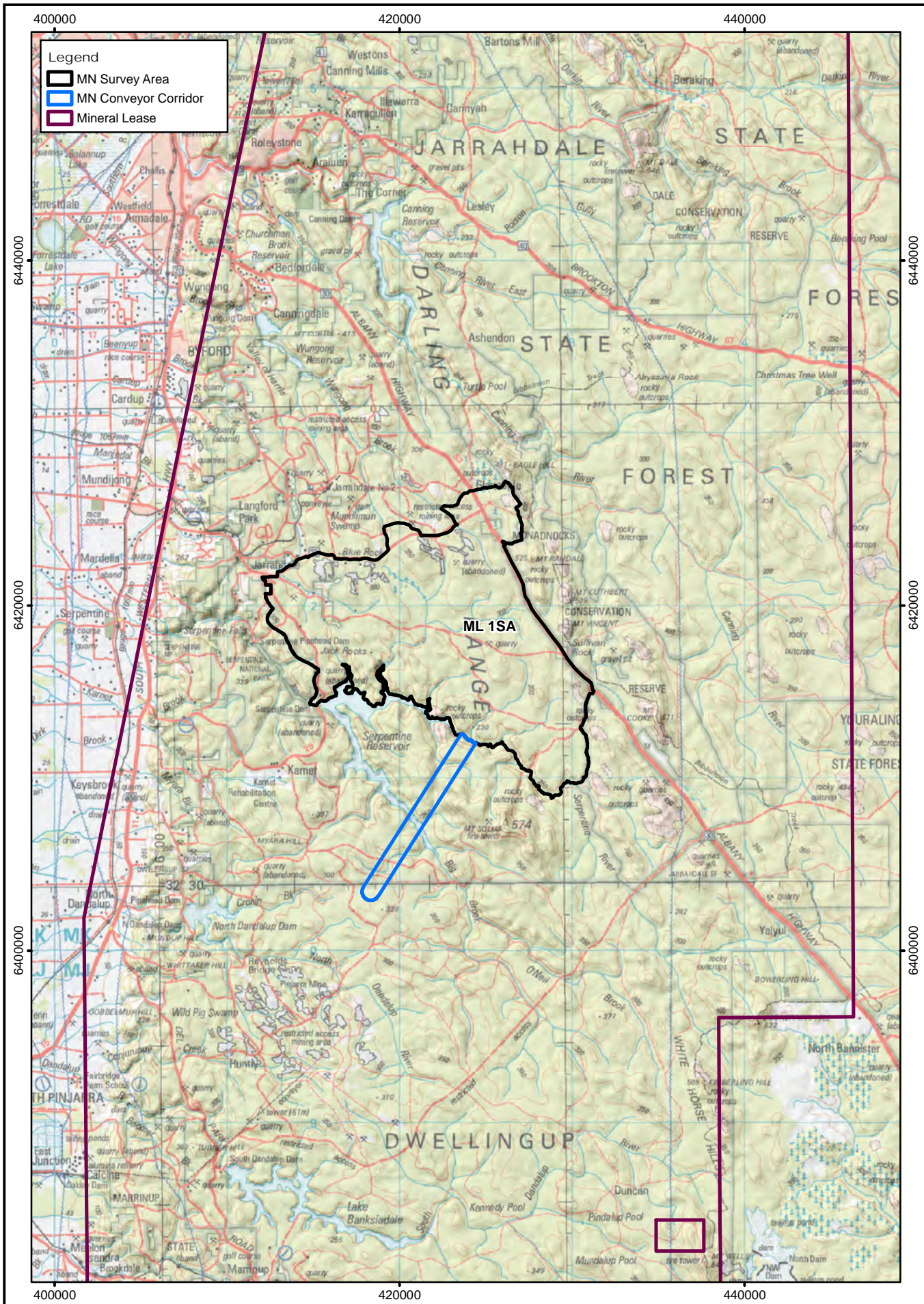
- *Commonwealth of Australia (2013) - Survey Guidelines for Australia's Threatened Orchids. Guidelines for detecting Orchids listed as "Threatened" under the Environment Protection and Biodiversity Conservation Act 1999.*

Definitions of flora and vegetation terminology commonly used throughout this report are provided in Appendix A1-A5.

2. OBJECTIVES

The objective of this assessment was to undertake a detailed flora and vegetation survey of the Myara North (MN) survey area, including:

- Undertake a desktop assessment of the potential native and introduced flora, threatened and priority flora, vegetation, threatened and priority ecological communities, vegetation condition, potential groundwater dependent ecosystems and old growth forests in the MN survey area;
 - Review the matters of local, regional, state and national conservation significance associated with the MN survey area;
 - Undertake a detailed assessment of the flora and vegetation of the MN survey area, with an emphasis on native and introduced flora, threatened and priority flora, vegetation, threatened and priority ecological communities, vegetation condition, potential groundwater dependent ecosystems and old growth forests;
 - Review previous literature and current databases associated with the MN survey area;
 - Review the conservation status of the vascular plant species recorded by reference to current literature and current listings by the Department of Biodiversity, Conservation and Attractions (DBCA 2018a, 2018c) and plant collections held at the Western Australian Herbarium ([WAH] 1998 -), and plants listed by the Department of Agriculture, Water and the Environment [DAWE] (2020a) under the EPBC Act;
 - Review the conservation status of the vegetation values recorded by reference to current literature and current listings by the Department of Biodiversity, Conservation and Attractions (DBCA 2020a, 2020c) Department of Agriculture, Water and the Environment [DAWE 2020e] under the EPBC Act;
 - Prepare a report summarising the findings.
-



<p>N 0 2 4 km Scale: 1:300,000 MGA94 (Zone 50)</p>	<p>Mattiske Consulting Pty Ltd 28 Central Road, Kalamunda WA 6076 - Tel: 9257 1625 - Fax: 9257 1640</p>
<p>CAD Ref: a1992_MyNth_F01_02 Date: March 2021 Rev: A A4</p>	

Locality and Tenements Myara North survey area

3. METHODS

3.1. Desktop Assessment

The NatureMap (DBCA 2007-) and *EPBC Act* Protected Matters Search Tool (DAWE 2020b) databases were used to identify the possible occurrence of flora (including threatened and priority taxa) and threatened and priority ecological communities within the MN survey area.

Searches within NatureMap were centred on the point -32° 21' 54" S, 116° 10' 23" E. A search radius of 20 km. The search parameters used for the *EPBC Act* Protected Matters Search Tool search were the same as those for the NatureMap search. The databases of threatened and priority flora and ecological communities (DBCA 2007-, 2018a, 2018b, 2020a, 2020b) were arranged by CAD Resources (Carine, WA). In addition, any flora recorded by E. Mattiske and Associates) and Mattiske Consulting Pty Ltd (1991-2020) within or adjacent to the survey areas were included. Data was also supplied by the DBCA in 2020 on the timber harvesting and old growth forest records.

In addition, historical documentation and vegetation mapping of the Northern Jarrah forest subregion that provide resource material for the floristics and vegetation of the MN survey area was reviewed, including (E.M. Mattiske and Associates 1991 to 1993) and Mattiske Consulting Pty Ltd (1994 and 2019) reports on their flora and vegetation surveys in the MN survey area. Nomenclature of flora species was checked against and is consistent with Florabase (WAH 1998-).

3.2 Field Surveys

To maintain consistency with previous mapping of the area, enabling spatial and temporal comparisons, flora and vegetation were assessed using site-type classification based on Heddlé *et al.* (1980). Sites were pre-designated using a 120 x 120 m grid system overlaid on the survey area. Additional opportunistic sites were surveyed when changes in the vegetation, representing communities which would otherwise have been missed, were encountered whilst walking between designated survey sites. Site data was used to define vegetation types for each survey site. This data was then used in combination with aerial imagery and field observations to map the vegetation of the survey area. Searches for threatened, priority or weed (introduced species) species were undertaken during the field survey work both during the grid survey work and through additional coverage of areas.

The following information was recorded at each vegetation assessment site:

GPS location	Easting, Northing and datum;
Soil types	gravels, sandy-gravels, sandy-loam-gravels, sandy-loams, loams, clay-loams, clays and peat;
Topography	ridge, upper slope, mid-slope, lower slope, valley floor and swamp;
Outcropping	type – granite, laterite, dolerite, and quantity – few, moderate, numerous;
Logging history	light, moderate or heavy, together with number of stumps within a 20 m radius;
Fire history	years since last fire; and
Dieback occurrence	<i>Phytophthora</i> spp. demarcation – field blazing, coloured flagging on trees, vegetation deaths, either old or recent.

At each site species were ranked according to the scale developed by Havel (1975a, 1975b). Tree and understorey species were assessed separately using the following method.

Tree species

Tree species (*Allocasuarina fraseriana*, *Banksia grandis*, *B. littoralis*, *B. seminuda*, *Corymbia calophylla*, *Eucalyptus marginata*, *E. megacarpa*, *E. patens*, *E. rudis*, *E. wandoo*, *Melaleuca preissiana*, *M. raphiophylla*, *Nuytsia floribunda*, *Persoonia elliptica*, *P. longifolia* and *Xylomelum occidentale*) were assessed within a 20m radius from the observation point using the following scale:

0 absent;

 Flora and Vegetation – Myara North Survey Area

- 1 one or two trees;
- 2 three to five trees;
- 3 more than five trees, but contributing less than one third of the total stand;
- 4 between one third and one half of the total stand; or
- 5 more than one half of the total stand.

Understorey species

Understorey species were assessed within a 5m radius from the observation point using the following scale:

- 0 absent;
- 1 very rarely seen, only after a careful search;
- 2 present, observable, but in small numbers only;
- 3 common locally, but not uniform over the whole area;
- 4 common over the whole area; or
- 5 completely dominating the understorey.

The physiological stress was determined for each species within a 20m radius from the observation point and ranked according to the following scale.

- 0 healthy, no evidence of stress;
- 1 odd plant showing signs of stress, not dead;
- 2 one or two dead plants, near death;
- 3 scattered stressed plants, (2-4) dead plants around survey site;
- 4 susceptible plants dying or dead (> 4 plants); or
- 5 **"graveyard" death**

The vegetation and condition conditions rating was based on Keighery (1994) and Trudgen scale (1988), Appendix A5. The condition in the MN survey area was determined on the basis of previous harvesting (DBCA 2020 supplied data), dieback mapping (Glevan Consulting 2020), site-vegetation types as defined and mapped by Mattiske Consulting Pty Ltd, detailed data on logging debris, residual stumps and numbers and types of larger trees (>50cm Diameter at Breast Height), introduced species, degree of disturbance and stages of rehabilitation. Some condition states may be temporary and assessed on current status rather than potential condition state. In areas not traversed, interpretation was based on recent aerial photographic interpretation, previous studies in the area and extrapolation from adjacent areas. Some forest areas were identified with patches of larger trees that have the potential values of some areas for fauna habitats. These sites supported a mixture of trees with a diameter at breast height greater than 50cm. Although previous logging activities and fires may have influenced the flora and vegetation values, the underlying factors such as site tolerances and seasonal conditions have been delineated as key drivers of the flora and vegetation values by a range of authors in the northern Jarrah forest (Havel 1975a, 1975b, Heddl et al. 1980, Mattiske and Havel 1998, Havel 2000). The current state of rehabilitation areas was also considered in the condition rating and as indicated by Grant and Koch (2007) and Daws *et al.* (2021) may be influenced by a range of factors related to age of rehabilitation, site treatments that will influence the resulting structural and floristics on different areas. Consequently, condition states are related to a range of factors and criteria and in this context as such differ from the more generic one in the EPA (2016b) Guidance Statement.

All plant specimens collected during the field survey were dried and processed in accordance with the requirements of the Western Australian Herbarium (WAH). All plant specimens were identified through comparisons with pressed specimens housed at the WAH. Where appropriate, plant taxonomists with specialist skills were consulted. Nomenclature of the species recorded is in accordance with the WAH (1998-).

Twenty-two plots (plots 20m x 20m with 20 x 2m x 2m quadrats in each plot corner and in centre) were established in the dominant site-vegetation types. In each quadrat of each plot data was collected on densities and foliage cover for all species present in the quadrats. The location of each plot was designated

Flora and Vegetation – Myara North Survey Area

by a peg in the north-west corner and also by recording the northwest easting and northing (GDA94 Datum). This data was then combined with selected previous plot data collected by Mattiske teams and also Alcoa environmental teams within the MN survey area and nearby forest areas. This combined data set was then analysed (Section 3.3).

3.3 Data Analysis

Data analysis of recording sites was undertaken by reference to the interpretation of the presence of keystone species as developed and defined by Havel (1975a and 1975b) and as further developed by Mattiske over some 40 years of extensive vegetation mapping in the northern Jarrah forest. In addition, the position in the landscape, the type or landform and soils and the presence of granite outcrops were taken into consideration in the delineation of site-vegetation types. To enable integration with the surrounding vegetation mapping undertaken over these 40 years by Havel (1975b) and E. Mattiske and Associates (1988-1993) and Mattiske Consulting (2006-2019) the definition of the site-vegetation types were maintained with only slight changes to accommodate local variants.

The vegetation plot data (plots 20m x 20m with 20 x 2m x 2m quadrats in each plot corner and in centre) from the MN survey area and from the previous areas in close proximity to MN survey area from previous plot data in the Jarrahdale and Myara/Huntly areas were combined and analysed using the Plymouth Routines in Multivariate Ecological Research v7 (PRIMER) statistical analysis software was used to analyse species-by-site data and discriminate survey sites on the basis of their species composition (Clarke and Gorley 2015). A range of analyses were undertaken including inclusion of presence/absence data, quantitative data. Introduced species, annual species were excluded from the data set prior to analysis. A range of analyses were undertaken on the plots and as a result a reliance was placed on presence/absence and quantitative foliage cover data keystone species as defined by Havel (1975a and 1975b) and as modified by Mattiske (1988 to 2019) for the northern Jarrah forest. Computation of similarity matrices was based on the Bray-Curtis similarity measure. Hierarchical Clustering (CLUSTER) was used in conjunction with Similarity Profile (SIMPROF) and plot descriptions; combining these methods increased the understanding of plot inter-relations and thus the ability to interpret trends in the survey area.

3.4. Survey Limitations

A general assessment was made of the current survey against a range of factors that may have limited the outcomes and conclusions of this report (Table 1).

Table 1: Potential flora and vegetation survey limitations for the Myara North survey area

Potential Survey Limitation	Impact on Survey
Sources of information and availability of contextual information (<i>i.e.</i> pre-existing background versus new material)	Minor constraint: Reference resources such as mapping by Beard (1979), Mattiske and Havel (1998), previous vegetation mapping completed for Alcoa by E.M Mattiske and Associates together with online flora and vegetation information, has provided an appropriate level of information for the current survey. In view of the lack of DBCA data within the defined PEC areas within the MN survey areas affinities with communities on granite outcrops on the Darling Scarp as defined by Markey (1997) raises some issues on which species and site-vegetation types associated with granite outcrops should be aligned with the PEC as defined by DBCA 2020a. A conservative approach was adopted and as such there was a reliance on the site-vegetation types G and R as defined by Havel (1975a, 1975b) and as defined and mapped previously in the northern Jarrah forest.
Scope (<i>i.e.</i> what life forms, <i>etc.</i> , were sampled)	Not a constraint: Vascular flora, which were the focus of the present survey was sampled on a close grid pattern within the survey area and with an additional 22 Myara plots (20m x 20m) which were integrated with the previous nearby plots near Jarrahdale (14 plots), on the previous mapped areas and in nearby Huntly and Myara forest areas (74 plots) as established by Alcoa which resulted in a total of 110 plots of which 28 occur within or on the fringes of the MN survey area.

Flora and Vegetation – Myara North Survey Area

Table 1: Potential flora and vegetation survey limitations for the Myara North survey area

Potential Survey Limitation	Impact on Survey
Proportion of flora collected and identified (based on sampling, timing and intensity)	Not a constraint: The survey areas has been sampled over multiple years from previous assessments near Jarrahdale and within the Huntly and Myara areas with the more recent work on the detailed records on the grid system, targeted tracks and extra targeted work on granite areas and in the permanent plots as established. The recent survey effort in the majority of the areas was undertaken in both winter, spring and summer months in 2020 (June to December 2020), with the majority of the work being undertaken in the spring months. The botanists undertaking the field surveys have had extensive experience working with the flora of the Jarrah forest. Any flora which could not be identified in the field was collected for subsequent identification. 91 of the taxa recorded were unable to be identified due to lack of flowering and fruiting material. The majority of the 91 species were unlikely to be threatened and priority flora species. Most of these species occurred as sterile plants (e.g. <i>Lomandra</i> , <i>Lepidosperma</i> , <i>Haemodorum</i> or <i>Drosera</i> species) in genera where conservation status of local species is not applicable.
Mapping reliability	Not a constraint: The vegetation was mainly assessed on a 120m x 120m grid pattern within the survey area. A total of 120 vegetation plots have been established by Alcoa and Mattiske (including an additional 22 plots within the 2020 MN survey area) and 13,556.79 kilometres were surveyed within the Huntly/Myara survey area. This together with over 6000 recording sites and the targeted and opportunistic survey sites (particularly near the granites and swamp areas) enabled intensive coverage of the values on the MN survey area and therefore the associated mapping of key flora values and the site-vegetation types with a high level of confidence.
Timing, weather, season, cycle	Not a constraint: The EPA (2016a) recommends that flora and vegetation surveys in the South – West Botanical Province be conducted in Spring (September-November). The intensive work undertaken in sections of MN has enabled coverage of different seasons with a concentration of effort in the spring months of 2020. The detailed survey work commenced in June and was completed largely by the end of November 2020. As indicated in Figure 2 the seasonal rains occurred in the winter months prior to survey work and although it was drier in some months the rains in May, September and November were higher than the long term averages and hence has not influenced the coverage of the flora. All of the survey sites on the grid systems were supplemented by a series of new and previous permanent plots (20m x 20m) and targeted work on the flora. The majority of the conservation significant flora can be recorded out of season with the exception of the Orchid species (which require flowering material, e.g. <i>Paracaleana granitica</i>), <i>Tetratheca phoenix</i> , <i>Pimelea rara</i> and <i>Stylidium ireneae</i> . However, the <i>Paracaleana granitica</i> and <i>Tetratheca phoenix</i> are associated with granitic outcrops which have been less disturbed by activities in the area. Further detailed work has been undertaken in the northern Jarrah forest and near creeklines in the adjacent Serpentine and Huntly area in different seasons (including spring months) and therefore the risks remain relatively low. These assessments have included multiple assessments of plots and transects in nearby Wungong catchment (2009b, 2011b) for the Water Corporation and also in plots for Alcoa.
Disturbances (fire flood, accidental human intervention, etc.)	Minor constraint: The majority of the survey area has been subject to previous logging activities and recreational activities, the vegetation of the survey area has been influenced to varying degrees by such activities. Sections of the survey area has been burned in recent years and consequently there was a need to rely on the key perennial species for site-vegetation type mapping. The dieback disease (<i>Phytophthora cinnamomi</i>) has also influenced the distribution of flora species in the MN survey area.
Access problems (i.e. ability to access survey area)	Not a constraint: Vehicle access through the MN area was only restricted in a small sections in the south that can be covered by foot traverses; although it did lead to a slight decrease in foot traverses and coverage. This southern areas was less diverse than the eastern and northern eastern broader valley systems.
Experience levels (e.g. degree of expertise in plant identification to taxon level)	Not a constraint: All botanists had direct and recent experience working in the Jarrah Forest and working for Alcoa and a range of other clients, and thus were familiar with the local flora and vegetation values. Dr Mattiske has more than 40 years of ecological experience in flora and vegetation studies in the southwest forests at a detailed floristic level, as well as detailed and regional vegetation assessment level. The experienced botanists in the Mattiske team included 3 members with more than 7 years in the Jarrah forest and the majority of the other botanists had more than 3 years of intensive Jarrah forest mapping and monitoring plot experience. Plant identifications were assisted by three botanists with more than 7 years working on the identification of flora from the Jarrah forest.

4. DESKTOP FINDINGS

The climate, geology, soils and landforms all influence the vegetation of the area and are described in this section. Potential flora, including threatened, priority and introduced species are described, along with possible vegetation communities, and placed within a local and regional context.

4.1. Climate

Beard (1990) described the climate of this area as being warm Mediterranean, with rainfall of 600 – 1200 mm per annum and 5 - 6 dry months per year. The closest weather station is the Jarrahdale and Karnet weather stations, approximately 1.6km and 11.1km from Jarrahdale town. Annual average rainfall at Jarrahdale (1991-2020) is 1169.2 mm (Bureau of Meteorology [BOM] 2021). Rainfall in 2020 was lower in June, July, August and October and higher in May, September and November (Figure 2). These fluctuations led to an extended spring season following peaks of rain in September and November 2020.

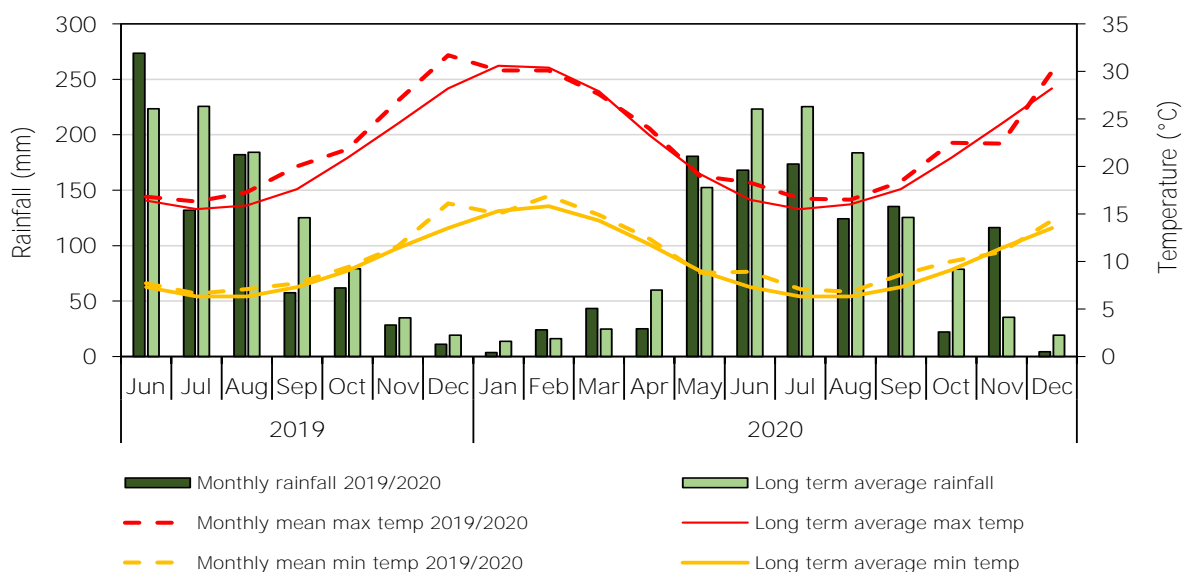


Figure 2: Climatic data for the Myara North survey area

Long term average rainfall and temperature from the Jarrahdale and Karnet weather station (ID 009023 and 009111 respectively, years 1991-2020) (BOM 2020).

4.2. DBCA Estates

The MN survey area is situated in State Forest, with the Serpentine National Park to the west of the survey area, and the Monadhocks Conservation Park to the east (Figure 3).

The Holyoake survey area occurs within the Regional Forest Agreement (RFA) area of the southwest forests DAWE (2020b) and as such was considered during the RFA process.

4.3. Geology, Soils and Topography

The MN survey area is situated **within Beard's (1990)** Northern Jarrah Forest subregion of the Southwest Province. The Northern Jarrah Forest subregion encompasses the area to the east of the Darling Scarp, overlying Archaean granite and metamorphic rocks of the Yilgarn Craton at an average elevation of 300 m (Beard 1990). The area is capped by extensive lateritic duricrust, dissected by drainage lines and broken

 Flora and Vegetation – Myara North Survey Area

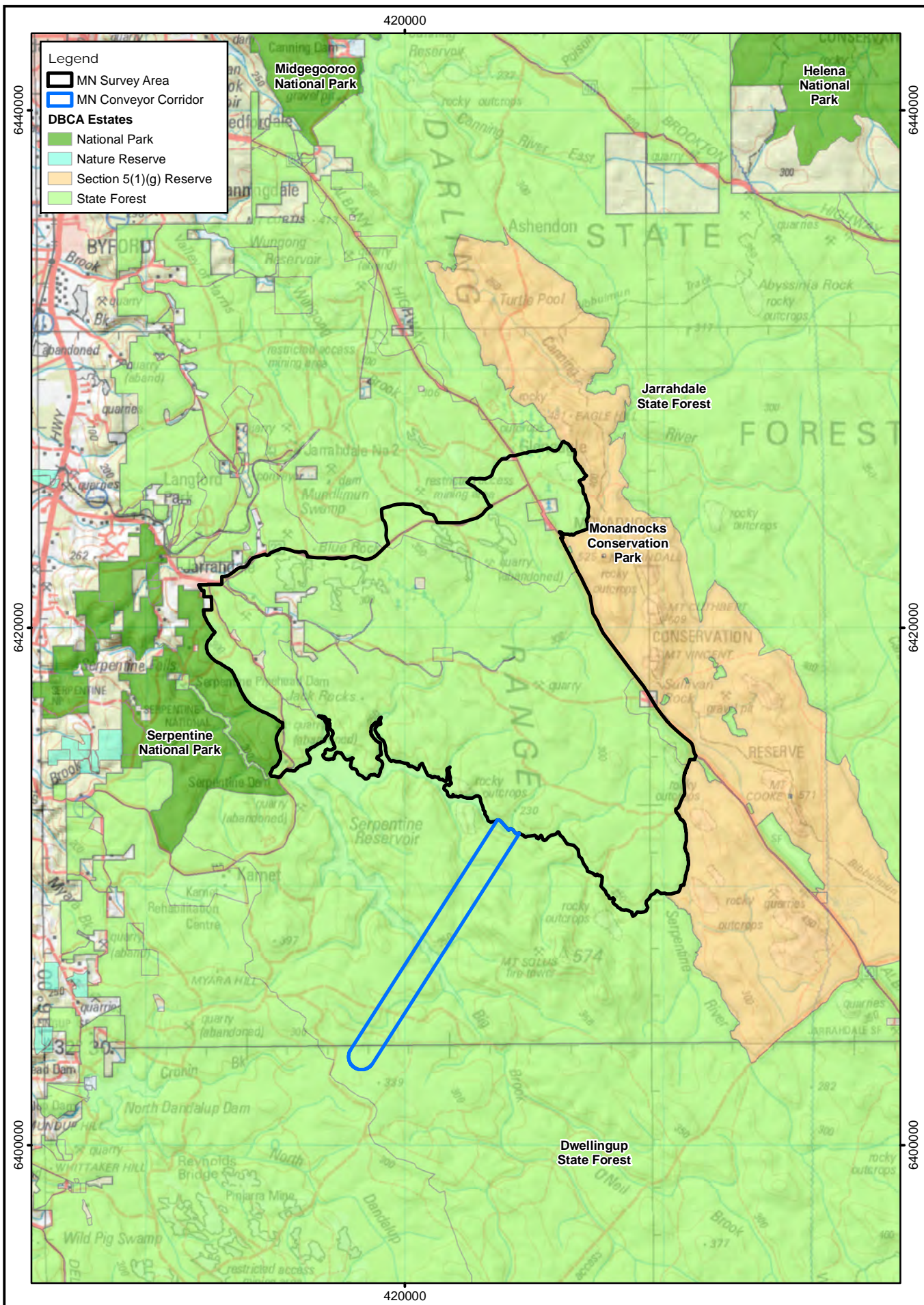
by occasional granite hills. In the eastern section, the laterite becomes deeply dissected until it compresses isolated remnants. The duricrusted plateau of the Yilgarn Craton is characterised by lateritic gravels, consisting of 5 m or more of ironstone gravels in a yellow sandy matrix, and related lateritic podzolic soils with ironstone gravels in a sandy surface horizon. These overlay mottled yellow-brown clay subsoils and hard setting loamy soils, which become evident in the east (Beard 1990).

The Department of Primary Industries and Regional Development's (DPIRD) Land Systems present within the MN survey area (Figure 4, Table 2) includes:

1. Darling Plateau System (255Dp): Lateritic plateau. Duplex sandy gravels, loamy gravels and wet soils. Jarrah-marri-wandoo forest and woodland.
2. Murray Valleys System (255Mv): Western Darling Range from the Avon Valley to Harvey. Deeply incised valleys with red loamy earths, shallow duplexes and rock outcrop and Jarrah-marri-wandoo forest and woodland with mixed shrubland.

Table 2: Extent of Land Systems intersecting the Myara North survey area

Land System	Mapping Unit	Total Extent (ha)	Area of Intersection with the Myara North survey area (ha)	Area of Intersection with the Myara Conveyor Corridor (ha)	Proportion of Current Extent (%)
Darling Plateau System	255Dp	820265.76	15714.87	833.42	2.02
Murray Valleys System	255Mv	132642.63	1734.07	258.34	1.50



Legend

- MN Survey Area
- MN Conveyor Corridor
- DBCAs Estates**
- National Park
- Nature Reserve
- Section 5(1)(g) Reserve
- State Forest

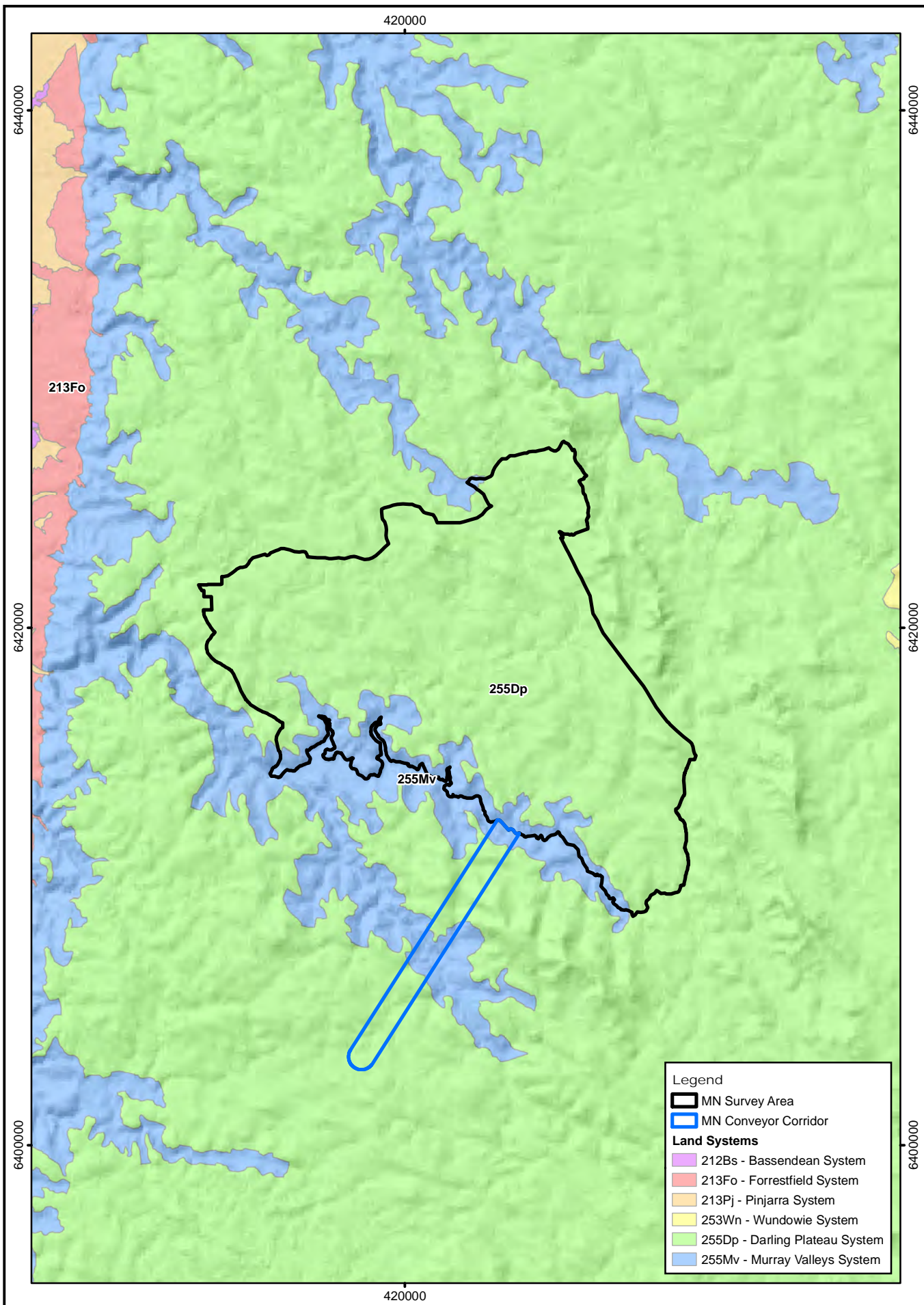
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**DBCAs Estates
 Myara North survey area**

Figure:
3

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 Date: March 2021 Rev: A A4



Legend

- MN Survey Area
- MN Conveyor Corridor

Land Systems

- 212Bs - Bassendean System
- 213Fo - Forrestfield System
- 213Pj - Pinjarra System
- 253Wn - Wundowie System
- 255Dp - Darling Plateau System
- 255Mv - Murray Valleys System

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Land Systems of the Myara North survey area

Figure:
4

 Flora and Vegetation – Myara North Survey Area

Furthermore, Western Australia is divided into twelve Systems, separated by natural and demographic boundaries (Department of Conservation and Environment 1980). The survey area lies within the Darling System (as known as System 6), which is further divided into provinces, with the survey area lying in The Darling Plateau province (Department of Conservation and Environment 1980).

The six underlying landform and soil units of the Darling Ranges of Darling Plateau were defined by Churchward and McArthur (1980) and have been updated into eleven soil landscape mapping units (DPIRD 2020 dataset) (Figure 5), namely:

- Dwellingup: Gently undulating landscape with duricrust on ridges; sands and gravels in shallow depressions.
 1097 Dwellingup Subsystem – Divides, lower to upper slopes and hillcrests. Duplex sandy gravels and loamy gravels with minor areas of shallow gravels, deep sandy gravels, yellow deep sands and yellow and pale deep sands, often gravelly.
 3998 Dwellingup 2 Phase - Very gently to gently undulating terrain (<10%) with well drained, shallow to moderately deep gravelly brownish sands, pale brown sands and earthy sands overlying lateritic duricrust.
- Murray: Deeply incised valleys with red and yellow earths on slopes; narrow alluvial terraces.
 4738 Murray Subsystem - Deeply incised valley of the Murray River; red and yellow earths and minor duplex soils; occasional rock outcrops; narrow sandy terrace.
- Yarragil: Valleys of the western part of the plateau; sandy gravels on the slopes; orange earth in swampy floors.
 1187 Yarragil Subsystem - Shallow, narrow, upper valleys of the deeply dissected Murray, Bindoon and Helena units. Alluvial, clay and loam soils, moderately well drained, often gravelly, with some sands and loams. Salt prone. Woodland of *E. wandoo*, *E. accedens*.
 4000 Yarragil 1 Phase - Very gentle to moderately inclined concave sideslopes. Moderately well drained yellow duplex soils and yellow and brown massive earths and gravels. Woodland of *E. wandoo*, *E. marginata*, *E. accedens*. *Casuarina obesa* on salt affected areas.
 4003 Yarragil 4 Phase - Valley floors with some poorly drained mottled yellow duplex soils and gentle lower slopes with moderately well to well drained loamy and sandy earths, gravels and duplex soils. Low woodland of *E. wandoo*, *E. marginata* and *Acacia* spp..
 6360 Yarragil Swamp Phase - Level to very gently inclined valley floors. Swampy river flats and terraces in granitic rocks; loamy and sandy duplex, wet soils, non-cracking clays and loams.
 6820 Yarragil DpYGh Phase - Very gentle to moderately inclined (<20%) concave valley sideslopes. Moderately well drained yellow duplex soils and yellow and brown massive earths.
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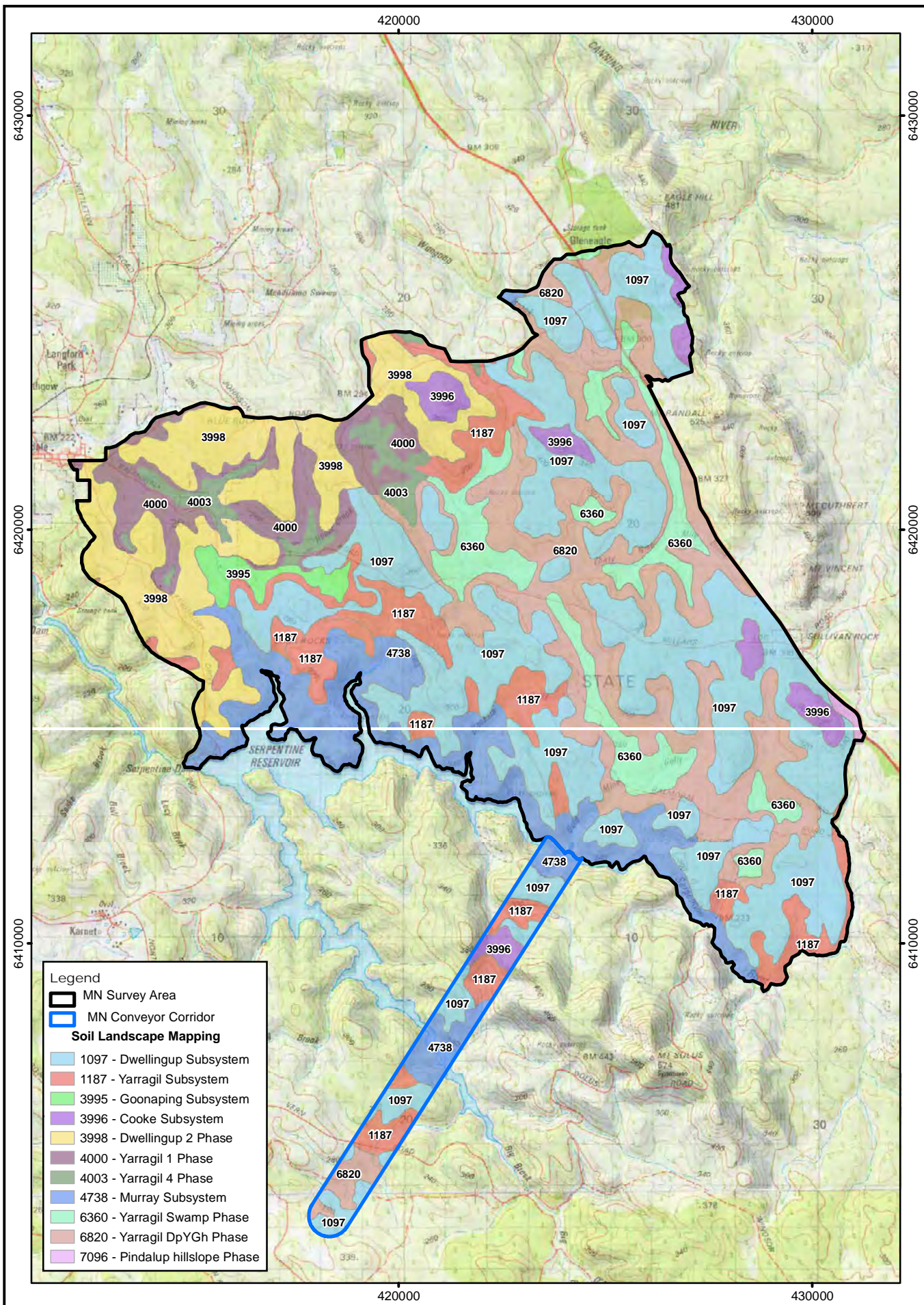
 Flora and Vegetation – Myara North Survey Area

Other landform and soil units occurring in the survey area include:

- Goonaping:** Shallow upland valleys with grey sands and some swamps.
3995 Goonaping Subsystem - Level to gently sloping imperfectly drained swampy margins with deep grey, yellowish brown or brown siliceous or bleached sands.
- Cooke:** Hills rising above general plateau level; mainly mantled by laterite with some rock outcrop.
3996 Cooke Subsystem - Crests and upper slopes dominated by granite outcrop and very shallow yellow duplex soils, and yellow and brown massive earths.
- Pindalup:** Valleys of the central part of the plateau; gravelly duplex soils on slopes; some rock outcrop; grey sands, duplex yellow soils and orange earths in broad floors.
7096 Pindalup hillslope Phase - Sideslopes of minor valleys.

Table 3: Extent of Soil Landscapes intersecting the Myara North survey area

Soil Landscape	Mapping Unit	Total Extent (ha)	Area of Intersection with the Myara North survey area (ha)	Area of Intersection with the Myara Conveyor Corridor (ha)	Proportion of Current Extent (%)
Dwellingup Subsystem	1097	231143.22	5513.57	359.48	2.54
Yarragil Subsystem	1187	71930.78	1509.00	276.00	2.48
Goonaping Subsystem	3995	1712.09	211.638	-	12.36
Cooke Subsystem	3996	14044.45	435.42	75.32	3.64
Dwellingup 2 Phase	3998	65466.40	2203.79	-	3.37
Yarragil 1 Phase	4000	13843.54	956.33	-	6.91
Yarragil 4 Phase	4003	5026.70	412.43	-	8.20
Murray Subsystem	4738	61549.36	1734.08	258.27	3.24
Yarragil Swamp Phase	6360	5373.88	1211.11	-	22.54
Yarragil DpYGh Phase	6820	22362.89	3226.71	122.70	14.98
Pindalup hillslope Phase	7096	16507.21	34.88	-	0.21
Total			17448.94	1091.77	



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 Date: April 2021

Rev: A | A4

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Landform and Soils Myara North survey area

4.4. Regional Vegetation

The survey area is situated within Beard's (1990) Northern Jarrah Forest subregion of the Southwest Province. The Northern Jarrah Forest subregion is characterised by Jarrah (*Eucalyptus marginata*) forest on ironstone gravels and Marri-Wandoo (*Corymbia calophylla* - *Eucalyptus wandoo*) woodlands on loamy soils, with sclerophyll understoreys. Dell and Havel (1989) broadly classified the Jarrah Forest as an open forest in its northern extent and as a tall forest in its southern extent. In lower rainfall areas towards the east trees decrease in size, forming woodlands or low forests. This dry sclerophyllous forest typically comprises a dominant *Eucalyptus marginata* and *Corymbia calophylla* overstorey, a mid-storey of *Allocasuarina fraseriana* (Sheoak), *Banksia grandis* (Bull Banksia), *Persoonia longifolia* (Snottygobble), *Persoonia elliptica* (Spreading Snottygobble), and a groundcover of woody shrubs with grass trees *Xanthorrhoea preissii*, *Kingia australis* and the cycad *Macrozamia riedlei* (Dell and Havel 1989).

The Pre-European vegetation systems present within the MN survey area (Figure 6, Table 4) include:

1. West Darling System

Vegetation Association 3.3: Medium forest, jarrah-marri.

Vegetation Association 128.0: Bare areas, rock outcrops.

Table 4: Extent of pre-European vegetation associations intersecting the Myara North survey area

System	Vegetation Association	State-wide Pre-European Extent (ha)	Area of Intersection with the Myara North survey area (ha)	Area of Intersection with the Myara Conveyor Corridor	Proportion of Current Extent (%)
West Darling	3.3	686824.44	17418.60	1091.76	2.69
West Darling	128.0	2036.28	30.35	-	1.49

Heddlé *et al.* (1980) defined and described the dominant pre-European vegetation of the Darling System in a series of vegetation complexes as part of the System 6 studies. Mattiske and Havel (1998) updated this initial more restricted mapping coverage to the wider south-west forest region as (Regional Forest Agreement vegetation complexes). Havel, J.J. (2000) summarized in greater detail the relationships between the landforms, soils and climatic conditions. Mattiske and Havel (1998) defined and described nine vegetation complexes in the MN survey area (Figure 7, Table 5). These include:

Cooke (Ce): Mosaic of open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* (subhumid zone) and open forest of *Eucalyptus marginata* subsp. *thalassica* - *Corymbia calophylla* (semiarid and arid zones) and on deeper soils adjacent to granite outcrops, closed heath of Myrtaceae - Proteaceae species and lithic complex on granite outcrops and associated soils in all climate zones, with some *Eucalyptus laeliae* (semiarid), and *Allocasuarina huegeliana* and *Eucalyptus wandoo* (mainly semiarid to periarid zones).

Dwellingup 1 (D1): Open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* on lateritic uplands in mainly humid and subhumid zones.

Dwellingup 2 (D2): Open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* on lateritic uplands in subhumid and semiarid zones.

Goonaping (G): Mosaic of open forest of *Eucalyptus marginata* subsp. *marginata* (humid zones) and *Eucalyptus marginata* subsp. *thalassica* (semiarid to periarid zones) on the sandy-gravels, low woodland of *Banksia attenuata* on the drier sandier sites (humid to periarid

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zones) with some *Banksia menziesii* (northern arid and periarid zones) and low open woodland of *Melaleuca preissiana* – *Banksia littoralis* on the moister sandy soils (humid to periarid zones).

Murray 1 (My1): Open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* - *Eucalyptus patens* on valley slopes to woodland of *Eucalyptus rudis* – *Melaleuca raphiophylla* on the valley floors in humid and subhumid zones.

Pindalup (Pn): Open forest of *Eucalyptus marginata* subsp. *thalassica* – *Corymbia calophylla* on slopes and open woodland of *Eucalyptus wandoo* with some *Eucalyptus patens* on the lower slopes in semiarid and arid zones.

Swamp (S): Mosaic of low open woodland of *Melaleuca preissiana* – *Banksia littoralis*, closed scrub of Myrtaceae spp., closed heath of Myrtaceae spp. and sedgeland of *Baumea* and *Leptocarpus* spp. on seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones.

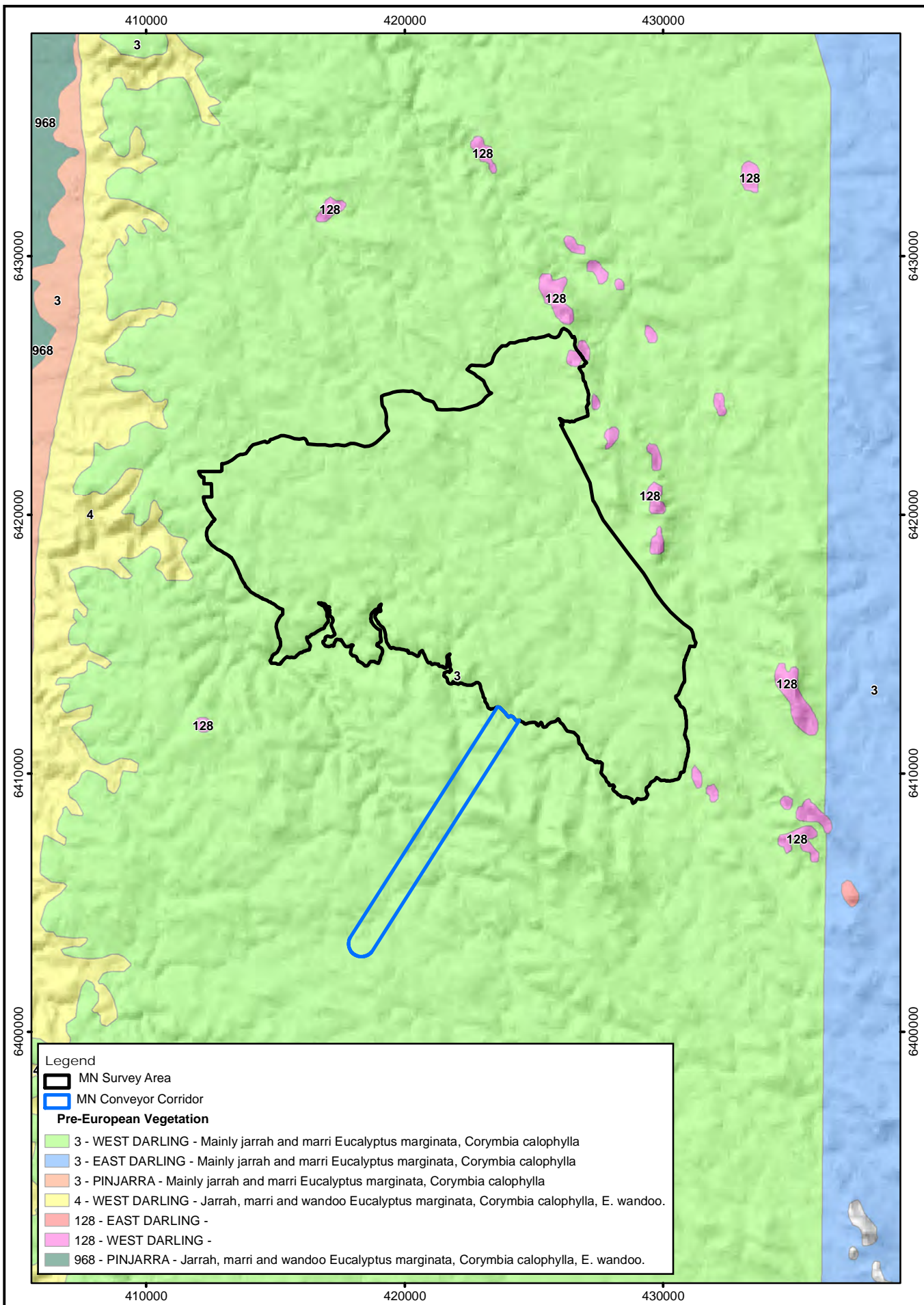
Yarragil 1 (Yg1): Open forest of *Eucalyptus marginata* subsp. *marginata* - *Corymbia calophylla* on slopes with mixtures of *Eucalyptus patens* and *Eucalyptus megacarpa* on the valley floors in humid and subhumid zones.

Yarragil 2 (Yg2): Open forest of *Eucalyptus marginata* subsp. *thalassica* – *Corymbia calophylla* on slopes, woodland of *Eucalyptus patens* – *Eucalyptus rudis* with *Hakea prostrata* and *Melaleuca viminea* on valley floors in subhumid and semiarid zones.

Table 5: Extent of Vegetation Complexes intersecting the Myara North survey area

Vegetation Complex	Vegetation Class	Total Extent (ha)	Area of Intersection with the Myara North survey area (ha)	Area of Intersection with the Myara Conveyor Corridor	Proportion of Current Extent (%)
Cooke	Ce	51872.10	435.49	75.31	0.98
Dwellingup 1	D1	297624.85	2630.77	359.40	1.00
Dwellingup 2	D2	120755.00	4951.67	-	4.10
Goonaping	G	38871.59	304.21	-	0.78
Murray 1	My1	97562.81	1745.63	258.36	2.05
Pindalup	Pn	236540.59	34.91	-	0.01
Swamp	S	76245.98	1537.83	-	2.02
Yarragil 1	Yg1	113828.12	871.15	276.02	1.01
Yarragil 2	Yg2	71234.37	4937.29	122.67	7.10

More recently, the vegetation of Western Australia has been assigned to bioregions and subregions under the Interim Biogeographical Regionalisation for Australia (IBRA), with the survey area falling within the Northern Jarrah Forest subregion (JF1) of the Jarrah Forest (JAF) Region (DAWE 2020c). The vegetation of the Northern Jarrah Forest subregion consists of Jarrah – Marri forest, with Bullich and Blackbutt in the valleys to the west, grading to Wandoo and Marri woodlands to the east. Heath vegetation is the common understorey of forests and woodlands and occurs on granite outcrops. The majority of the diversity between communities in this subregion occurs on lower slopes and near granite outcrops (Williams and Mitchell 2001).



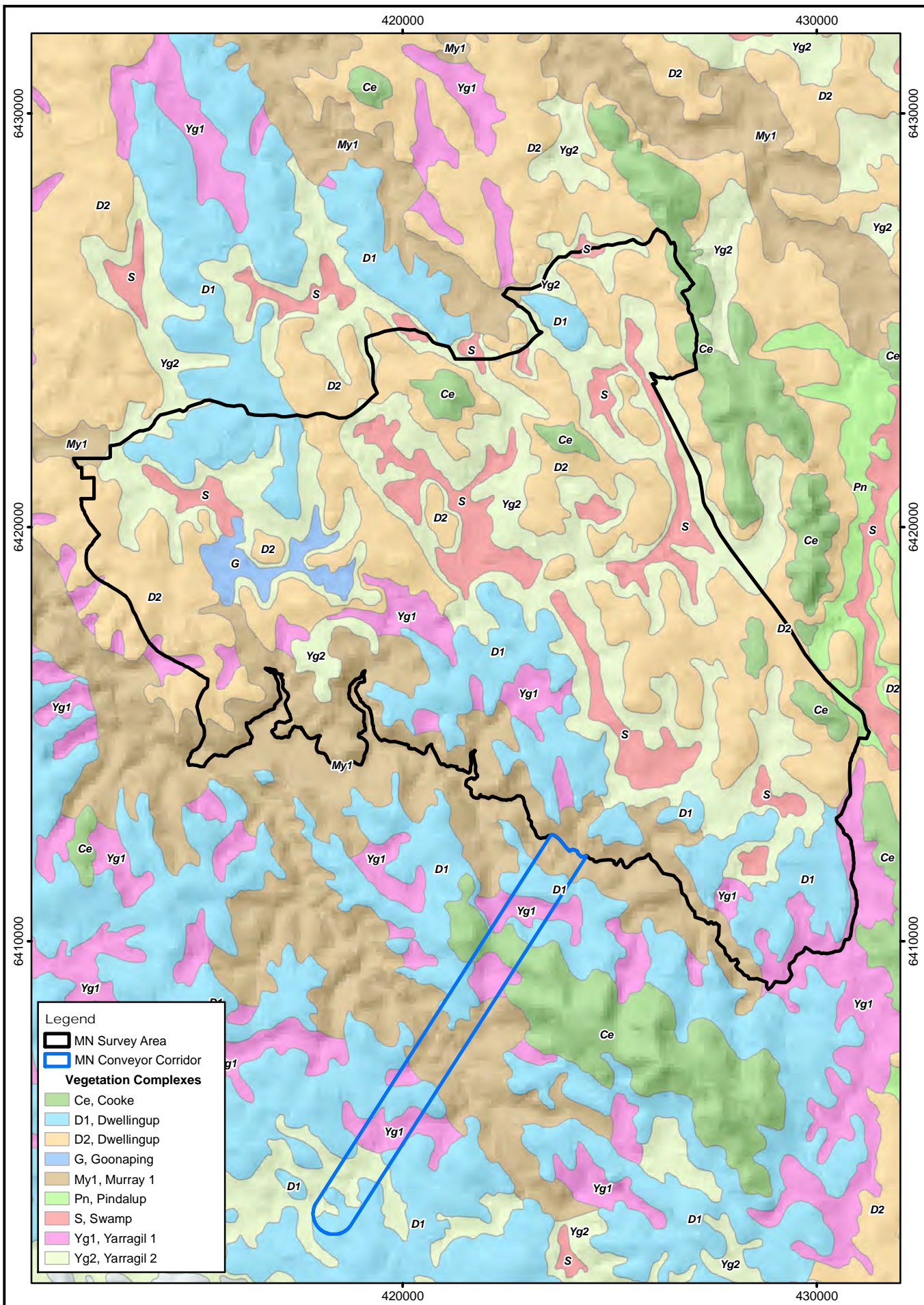
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Scale: 1:200,000
MGA94 (Zone 50)

CAD Ref: a1992_MyNth_F01_07
Date: March 2021

Rev: A | A4

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Pre-European Vegetation Myara North survey area



Legend

- MN Survey Area
- MN Conveyor Corridor

Vegetation Complexes

- Ce, Cooke
- D1, Dwellingup
- D2, Dwellingup
- G, Goonaping
- My1, Murray 1
- Pn, Pindalup
- S, Swamp
- Yg1, Yarragil 1
- Yg2, Yarragil 2

N

0 1 2 km

Scale: 1:125,000
MGA94 (Zone 50)

CAD Ref: a1992_MyNth_F01_08
Date: March 2021

Rev: A | A4

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Vegetation Complexes Myara North survey area

4.5. Potential Flora

A total of 1454 vascular plant taxa, representative of 411 genera and 108 families, have the potential to occur within the MN survey area. This total was based on NatureMap (DBCA 2007-) and PMST (DAWE 2020b) searches and a summary of all previous data collected during previous surveys within and near MN survey area (E. M. Mattiske and Associates 1988-1993 and Mattiske Consulting Pty Ltd 2006-2019). The most commonly represented families were Fabaceae (175 taxa), Proteaceae (121 taxa) and Myrtaceae (111 taxa). The most commonly represented genera were *Acacia* (61 taxa), *Styliidium* (45 taxa) and *Drosera* (37 taxa).

4.5.1. Potential Threatened and Priority Flora

The PMST, DBCA and Herbarium database searches reported a total of 17 threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DAWE (2020a) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2018a) have the potential to occur in the MN survey area.

The DBCA and Herbarium database searches reported a total of 49 priority flora species as listed by DBCA (2018c) have the potential to occur within the MN survey area as recorded within a 20km radius of the MN survey area (Appendix C, Table 6, Figure 8). The likelihood that these species would occur within the survey area was determined using the following criteria:

- Known records within a 20 km radius of the centre of the survey area (as described above). More recent, proximal and numerous records were ranked higher.
- Potential presence of suitable habitat and landforms for the species within the survey area (e.g. soil type, bedrock type, topography, drainage lines, vegetation).

The likelihood was ranked Low, Moderate or High based on current knowledge on database searches using Florabase (WAH 1998-), knowledge of the site preferences of the respective threatened and priority species available from the State Herbarium records and knowledge of the species from the experienced team members.

In summary, the likelihood assessment indicated that a total of no threatened species and 12 priority species have a high likelihood of occurring within the survey area, and 9 threatened species and 19 priority species have a moderate likelihood of occurring within the survey area (Table 6, Appendix C). Of the species with high and moderate likelihood of occurring, the species are mostly associated with swamps (41.9%) or granite outcrops (58.1%) and 61.3% with lateritic gravelly soils. The use of the 20km radius in baseline desktop searches included species that are restricted to the Swan Coastal Plain and a range of species that occur in the main areas on granite outcrops (e.g. Mt Cooke, Mr Windsor and Mt Wells) to the north and east, and the eastern Jarrah forest in lower rainfall areas.

No threatened flora species have a high likelihood of occurring in the MN survey area and the majority occur in areas near granite outcrops and within swamps and valley systems. This interpretation is reinforced by the concentration of threatened flora on the western fringes on the Swan Coastal Plain and Darling Scarp (western fringes of the Darling Ranges) within the 20km radius, Figure 8. Two non-vascular species *Amanita kalamundae* and *Xanthoparmelia darlingensis* were also delineated in the database search, Figure 8; although the scope of the current work did not include survey coverage of non-vascular plant species. *Amanita kalamundae* extends southwards throughout the forest to the southcoast area (Florabase WAH 1998-) and *Xanthoparmelia darlingensis* occurs as disjunct populations near Jarrahdale and the southcoast and as such may reflect the lack of research on non-vascular species in Western Australia.

TABLE 6: SUMMARY OF POTENTIAL THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA BY VEGETATION COMPLEXES, AND DOMINANT LANDFORM AND SOIL GROUPINGS

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SC C	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Lateritic Soils on Uplands and Slopes	Granite Outcrops	Valley Systems and Swamps
<i>Anthocercis gracilis</i>	Solanaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. Recorded in Dwellingup 1 in wider Jarrah forest. Mainly near granites (Florabase records) and less likely in lateritic gravels.		X	
<i>Diuris drummondii</i>	Orchidaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On swamps and not likely in lateritic soils.			X
<i>Diuris micrantha</i>	Orchidaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On swamps and not likely in lateritic soils.			X
<i>Eleocharis keigheryi</i>	Cyperaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On seasonally wetter areas and not likely in lateritic soils.			X
<i>Grevillea flexuosa</i>	Proteaceae	T	V	Moderate	Recorded in Cooke, Ce in wider Jarrah forest. Mainly associated with granites.		X	
<i>Lasiopetalum pterocarpum</i>	Malvaceae	T	E	Moderate	Recorded on Darling Scarp, DS2, Murray 1, My1 and Helena 1, He1, so may extend to granite outcrops. Not in lateritic soils.		X	
<i>Verticordia fimbriilepis</i> subsp. <i>fimbriilepis</i>	Myrtaceae	T	E	Moderate	Recorded in Swamps, S in wider Jarrah forest. Some potential in lateritic soils.	X		X
<i>Verticordia plumosa</i> var. <i>ananeotes</i>	Myrtaceae	T	E	Moderate	Not recorded within MN area North previously or during 2020 and earlier studies. Not likely in lateritic soils.			X

TABLE 6: SUMMARY OF POTENTIAL THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA BY VEGETATION COMPLEXES, AND DOMINANT LANDFORM AND SOIL GROUPINGS (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

-Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Lateritic Soils on Uplands and Slopes	Granite Outcrops	Valley Systems and Swamps
<i>Andersonia</i> sp. <i>Saxatilis</i> (F. & J. Hort 3324)	Ericaceae	P1	-	High	Recorded on Dwellingup, D2 and Cooke, Ce	X	X	
<i>Calytrix simplex</i> subsp. <i>simplex</i>	Myrtaceae	P1	-	Moderate	Recorded in Dwellingup 2, D2 within wider Jarrah forest. Potential in lateritic soils.	X		X
<i>Paracaleana gracilicordata</i>	Orchidaceae	P1	-	High	Not likely in lateritic soils as associated mainly with outcrops (may be localised small occurrences in Dwellingup2, D2, Pindalup, Pn) but more likely in Cooke, Ce.		X	
<i>Paracaleana granitica</i>	Orchidaceae	P1	-	High	Mainly on granite outcrops, not in lateritic soils, may be in other complexes if small localised outcrops that are small in size (Dwellingup 2, D2).		X	
<i>Banksia recurvistyliis</i>	Proteaceae	P2	-	High	Recorded in Cooke, Ce and Dwellingup 2, D2 within wider Jarrah forest. Less likely in deeper lateritic soils.		X	
<i>Grevillea crowleyae</i>	Proteaceae	P2	-	High	Not recorded within MN previously or during 2020 and earlier studies. East of area in Dwellingup 2, D2.	X		
<i>Grevillea manglesii</i> subsp. <i>ornithopoda</i>	Proteaceae	P2	-	High	Recorded in Dwellingup 1, D1 and Murray 1, My1, less likely in deeper lateritic soils.		X	X
<i>Millotia tenuifolia</i> var. <i>laevis</i>	Asteraceae	P2	-	Moderate	Recorded in Dwellingup, D2. Potential in lateritic and granite soils.	x	X	
<i>Tetradlea phoenix</i>	Elaeocarpaceae	P2	-	Moderate	Recorded in mainly Cooke, Ce and occasionally in Dwellingup 4, D4 in wider Jarrah forest area. Most likely on granite. Not likely in deeper lateritic soils.		X	
<i>Acacia drummondii</i> subsp. <i>affinis</i>	Fabaceae	P3	-	Moderate	Potential in lateritic soils. Recorded in Yarragil 1 within wider Jarrah forest.	X		
<i>Acacia horridula</i>	Fabaceae	P3	-	Moderate	Recorded in Dwellingup, D2, Yarrail 1, Yg1, and Darling Scarp, DS2 in wider Jarrah forest. Potential in lateritic soils.	X	X	

TABLE 6: SUMMARY OF POTENTIAL THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA BY VEGETATION COMPLEXES, AND DOMINANT LANDFORM AND SOIL GROUPINGS (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

-Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Lateritic Soils on Uplands and Slopes	Granite Outcrops	Valley Systems and Swamps
<i>Acacia oncinophylla</i> subsp. <i>oncinophylla</i>	Fabaceae	P3	-	High	Recorded in Dwellingup 1, D1 in wider Jarrah forest. More likely on granites (Florabase, WAH 1998-)		X	
<i>Andersonia</i> sp. Audax (F. Hort, B. Hort & J. Hort 3179)	Ericaceae	P3	-	High	Recorded on Dwellingup 1, D1, Dwellingup 2, D2, Dwellingup 4, D4, Yarragil 2, Yg2, Swamp, S, Yarragil 2, Yg2 and Cooke, Ce. Potential in lateritic soils.	X	X	X
<i>Conospermum scaposum</i>	Proteaceae	P3	-	Moderate	Recorded in Yarragil 2, Yg2. Not likely in lateritic soils.			X
<i>Grevillea manglesii</i> subsp. <i>dissectifolia</i>	Proteaceae	P3	-	Moderate	Recorded in Dwellingup, D1, Murray 1, My1, Cooke, Ce and Pindalup, Pn. Potential in lateritic soils.	X		X
<i>Halgania corymbosa</i>	Boraginaceae	P3	-	Moderate	Recorded in Darling Scarp 2, DS2. Potential in lateritic soils.	X	X	
<i>Lasiopetalum glutinosum</i> subsp. <i>glutinosum</i>	Malvaceae	P3	-	Moderate	Recorded in Dwellingup 1, Darling Scarp 2, DS2 and Murray 1, My1 in wider area. Potential in lateritic soils.	X	X	
<i>Petrophile filifolia</i> subsp. <i>laxa</i>	Proteaceae	P3	-	Moderate	Recorded in Yarragil 1, Yg1 in wider area. Not likely in lateritic soils.			X
<i>Pithocarpa corymbulosa</i>	Asteraceae	P3	-	Moderate	Recorded in Yarragil 2, Yg2, Dwellingup 2, D2 and Swamp, S. Not likely in deeper lateritic soils.		X	
<i>Stackhousia</i> sp. Red-blotched corolla (A. Markey 911)	Celastraceae	P3	-	Moderate	Recorded north of MN in Dwellingup 2, D2 in wider Jarrah forest. Potential for occurrence in lateritic soils.	X	X	
<i>Synaphea pandurata</i>	Proteaceae	P3	-	Moderate	Recorded in Pindalup, Pn, Swamp, S and Dwellingup 2, D2 in wider Jarrah forest and earlier studies.	X		X

TABLE 6: SUMMARY OF POTENTIAL THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA BY VEGETATION COMPLEXES, AND DOMINANT LANDFORM AND SOIL GROUPINGS (continued)

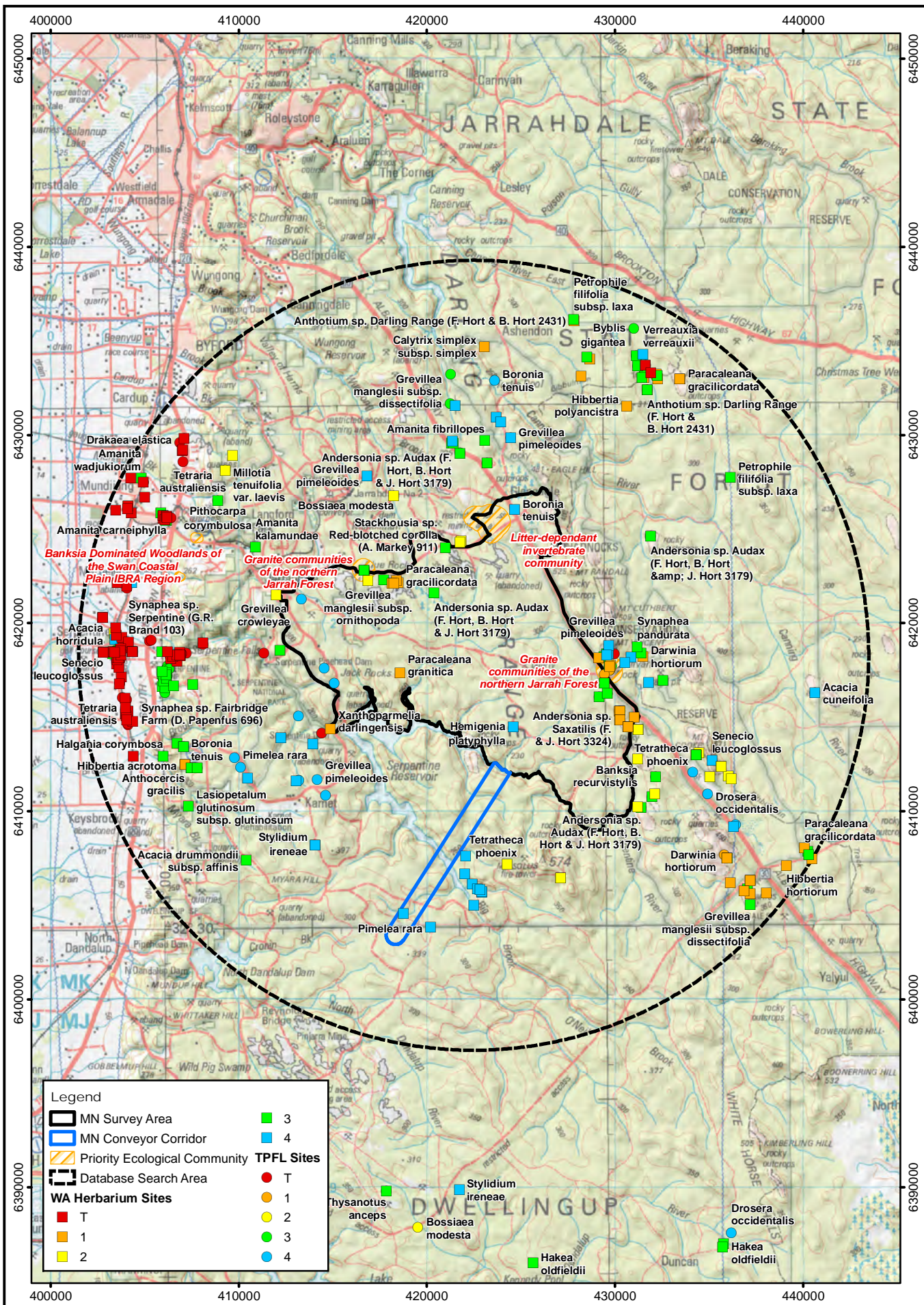
Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

-Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Lateritic Soils on Uplands and Slopes	Granite Outcrops	Valley Systems and Swamps
<i>Thysanotus anceps</i>	Asparagaceae	P3	-	Moderate	Recorded in Murray 1, My1 and Dwellingup, D1 in wider Jarrah forest. Potential for occurrence in lateritic soils.	X		X
<i>Boronia tenuis</i>	Rutaceae	P4	-	High	Recorded in Dwellingup 2, D2, Yarragil 1, Yg1 and Murray 1, My1 in wider Jarrah forest. Potential in lateritic soils in valleys and on granite outcrops.	X	X	
<i>Chorizema ulotropis</i>	Fabaceae	P4	-	Moderate	Recorded in Dwellingup 1, D1 and Dwellingup 2, D2 within wider Jarrah forest. Potential in lateritic soils.	X	X	X
<i>Grevillea pimeleoides</i>	Proteaceae	P4	-	High	Recorded in Murray 1, My1, Dwellingup, D1, Dwellingup, D2, Pindalup, Pn and Cooke, Ce in wider Jarrah forest. Although on outcrops, there is potential in lateritic soils.	X	X	
<i>Hemigenia platyphylla</i>	Lamiaceae	P4	-	High	Recorded in Dwellingup 1, D1. Less likely in deeper lateritic soils. Potential in sandy-gravels.	X	X	
<i>Lasiopetalum cardiophyllum</i>	Malvaceae	P4	-	Moderate	Recorded on sandy gravels and further east in wider Jarrah forest. May occur in lateritic soils.	X		X
<i>Parsonsia diaphanophleba</i>	Apocynaceae	P4	-	Moderate	Recorded in Murray 1, My1 and Yarragil 1, Yg1 in wider Jarrah forest. Less likely in lateritic soils.			X
<i>Pimelea rara</i>	Thymelaeaceae	P4	-	High	Recorded in Dwellingup, D1, Dwellingup 2, D2, Murray 1, My1, Yarragil 1, Yg1, Yarragil 2, Yg2, and to a lesser degree Cooke, Ce in wider Jarrah forest. Potential to occur in lateritic soils.	X		
<i>Stylidium ireneae</i>	Stylidiaceae	P4	-	Moderate	Recorded in Yarragil 1, Yg1 and Yarragil 2, Yg2 in wider Jarrah forest ranked as moderate. Not likely in lateritic soils.			X
<i>Stylidium scabridum</i>	Stylidiaceae	P4	-	Moderate	Less likely in lateritic soils, although was recorded in Dwellingup complexes.			X

Eight threatened flora species, *Anthocercis gracilis* (T), *Diuris micrantha* (T), *Diuris drummondii* (T), *Eleocharis keigheryi* (T), *Grevillea flexuosa* (T), *Lasiopetalum pterocarpum* (T), *Verticordia fimbriolepis* subsp. *fimbriolepis* (T) and *Verticordia plumosa* var. *ananeotes* (T), had a moderate likelihood of occurring in the MN survey area. Although raised in initial reviews, *Caladenia huegelii* (T) has been considered to have a low likelihood of occurring in any of the vegetation complexes within the MN survey area, due to it primarily occurring in the Swan Coastal Plain and an isolated population in the northern Jarrah Forest near Toodyay. Seven of these eight threatened flora species with a moderate likelihood occur in either seasonally moister soils or near granite outcrops. Eleven threatened flora species had a low likelihood of occurring in the MN survey area (Appendix C).

Twelve priority flora species, *Andersonia* sp. *Saxatilis* (F. & J. Hort 3324) (P1), *Paracaleana gracilicordata* (P1), *Paracaleana granitica* (P1), *Banksia recurvistylis* (P2), *Grevillea crowleyae* (P2), *Grevillea manglesii* subsp. *ornithopoda* (P2), *Acacia oncinophylla* subsp. *oncinophylla* (P3), *Andersonia* sp. *Audax* (F. Hort, B. Hort & J. Hort 3179) (P3), *Boronia tenuis* (P4), *Grevillea pimeleoides* (P4), *Hemigenia platyphylla* (P4) and *Pimelea rara* (P4), had a high likelihood of occurrence, mainly due to previous records in the area and suitable habitat. Nineteen priority flora species had a moderate likelihood of occurrence (Table 6, Appendix C).

All potential threatened and priority flora are listed in Appendix C, along with their State and Federal Conservation Codes (see Appendix A for definitions), a description and an assessment of the likelihood of their occurrence in the MN survey area.



Legend

- MN Survey Area
- MN Conveyor Corridor
- Priority Ecological Community
- Database Search Area

WA Herbarium Sites

- T
- 1
- 2

TPFL Sites

- 3
- 4
- T
- 1
- 2
- 3
- 4

N
0 2 4 km
Scale: 1:275,000
MGA94 (Zone 50)

CAD Ref: a1992_MyNth_F01_06
Date: March 2021

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DBCA Threatened and Priority Flora and Priority Ecological Communities

Figure: **8**

4.5.2. Potential Introduced (Weed) Species and Declared Pest (Plant) Organisms

A total of 192 introduced taxa from 51 families and 127 genera may potentially exist in the MN survey area, based on NatureMap (DBCA 2007-), the *EPBC Act* Protected Matters Search Tool (DAWE 2020b) search results (Appendix D) and records from Mattiske Consulting Pty Ltd (1991-2020) surveys. Ten of these species, * *Asparagus asparagoides*, * *Gomphocarpus fruticosus*, * *Moraea flaccida*, * *Rubus fruticosus* aggregate (* *Rubus anglocandicans*, * *Rubus laudatus*, * *Rubus ulmifolius*, * *Rubus ulmifolius* var. *ulmifolius*), * *Solanum elaeagnifolium*, * *Tamarix aphylla* and * *Zantedeschia aethiopica*, are declared pest organisms pursuant to section 22 of the BAM Act. A further four of the introduced species, * *Chrysanthemoides monillifera*, * *Chrysanthemoides monillifera* subsp. *monillifera*, * *Lantana camara* and * *Salvinia molesta*, are declared pest organisms pursuant to section 22 of the BAM Act, and are also listed as prohibited organisms pursuant to section 12 of the BAM Act. Ten of the introduced taxa, * *Asparagus asparagoides*, * *Chrysanthemoides monillifera* subsp. *monillifera*, * *Genista monspessulana*, * *Lantana camara*, * *Lycium ferocissimum*, * *Rubus fruticosus* aggregate, * *Salix* spp. (except *S. babylonica*, *S. x calodendron* & *S. x reichardtii*), * *Salvinia molesta*, * *Solanum elaeagnifolium*, and * *Tamarix aphylla*, are listed Weeds of National Significance (DAWE 2020d).

* *Asparagus asparagoides*, * *Moraea flaccida*, * *Solanum elaeagnifolium*, * *Tamarix aphylla* and * *Zantedeschia aethiopica* have no control category and a declared pest organism keeping category of Exempt for the whole of Western Australia (DPIRD 2020). * *Rubus anglocandicans*, * *Rubus laudatus*, * *Rubus ulmifolius* and * *Rubus ulmifolius* var. *ulmifolius* fall into the control category of C3 – Management and have a declared pest organism keeping category of Exempt for the whole of Western Australia (DPIRD 2020). * *Gomphocarpus fruticosus* falls into the control category of C3 – Management but does not have a declared pest organism keeping category. * *Chrysanthemoides monillifera* subsp. *monillifera* and * *Salvinia molesta* fall into the control category of C2 – Eradication and a declared pest organism keeping category of Prohibited for the whole of Western Australia (DPIRD 2020). * *Chrysanthemoides monillifera* and * *Lantana camara* fall into the control category of C1 – Exclusion and a declared pest organism keeping category of Prohibited for the whole of Western Australia (DPIRD 2020).

Declared pest organisms with a control category of C3 – Management should have a form of management applied that alleviate the harmful impact of the organism, reduce the numbers or distribution or prevent or contain the spread of the organism (DPIRD 2020). A declared pest category of Exempt requires no permits or conditions for keeping, although there may be other requirements under the *Biosecurity and Agriculture Management Act 2007*. Organisms in this category may also be regulated by legislation such as the *Biodiversity Conservation Act 2016* administered by DBCA. Declared pest organisms with a control category of C1 – Exclusion should be excluded from part or all of Western Australia. Declared pest organisms with a control category of C2 – Eradication should be eradicated from part or all of Western Australia. A declared pest organism with the keeping category of Prohibited can only be kept under permit for scientific research, public display or education purposes, by entities approved by the state authority (DPIRD 2020).

An assessment of the likelihood that the 18 significant weed species (Weeds of National Significance and/or declared pest organisms) would occur within the MN survey area (Appendix D) was determined using the following criteria:

- Known records within a 20 km radius of the centre of the survey area (as described above). More recent, proximal and numerous records were ranked higher.
- Potential presence of suitable habitat and landforms for the species within the survey area (e.g. soil type, bedrock type, topography, drainage lines, vegetation).

The likelihood was ranked Low, Moderate or High.

Based on this assessment, 13 of the significant weed species had a moderate likelihood, and five had a low likelihood, of occurring in the MN survey area.

4.6. Potential Groundwater Dependent Ecosystems

The potential groundwater dependent ecosystems (GDEs) were determined initially in the desktop assessment on the basis of the extent of the vegetation complexes (Mattiske Consulting 2020). The version of GDEs based on the vegetation complexes was refined following the site-vegetation type mapping of the MN survey area (see Section 5.9). In view of the extensive flora and vegetation studies in the northern Jarrah Forest the more detailed mapping of the site-vegetation types provides a more specific and comprehensive indication of areas of vegetation that occur on seasonally moister and wetter soils.

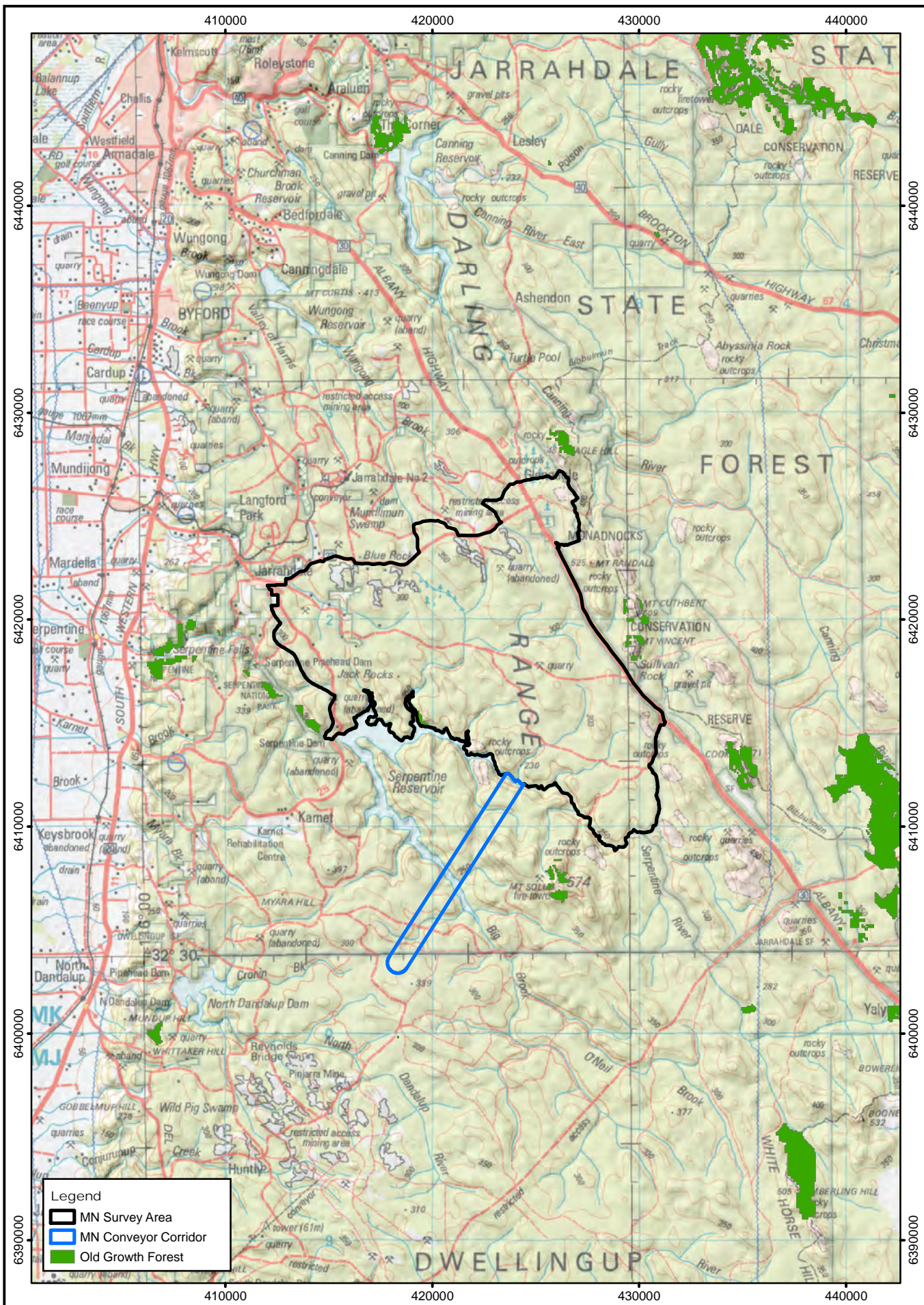
Key indicator plant species that are generally accepted as indicators of moister soils and, hence, potential groundwater dependent ecosystems include – *Banksia littoralis*, *Hakea varia*, *Acacia divergens*, *Pultenaea skinneri*, *Boronia molloyae*, *Thomasia paniculata*, *Astartea scoparia*, *Eucalyptus rudis*, *Hypocalymma cordifolium*, *Melaleuca preissiana*, *Melaleuca raphiophylla*, *Melaleuca viminea*, *Baumea* and *Leptocarpus species* and *Taxandria linearifolia*. *Babingtonia camphorosmae* and *Hypocalymma angustifolium* indicate seasonal moister soils and as such are significant in determining local conditions.

4.7. Old Growth Forests

DBCA mapping indicated that there are a number of patches of old growth forests occurring in the area surrounding the MN survey area, with some occurring within 10 km of the survey area boundary to the north, south, east and west (Figure 9). A small section of old growth forest intersects the survey area in the central part of the south-western boundary of the MN survey area (Figure 9).

Due to the proximity of the MN survey area to the township of Jarrahdale and the Perth population it is unlikely that there will be additional old growth forests in the survey area. Jarrahdale had a timber mill until 1997 after some 125 years of operation (<https://www.jarrahdale.com/a-history-of-jarrahdale-western-australia>, Dell, Havel and Malajczuk 1989).

The data as presented on the history of harvesting (supplied from period of pre 1920 to 2016) in the area reflects the age of logging on the MN survey area, see Figure 10. These results as supplied by DBCA (2020) reflect the increased logging in the northern section of the MN area and as such reflect previous activities in the area. The areas west of Jarrahdale and a few locations south of Jarrahdale have not been logged for some time. The cleared areas and dam areas reflect early historical clearing efforts. The red areas reflect layering of datasets.



Legend

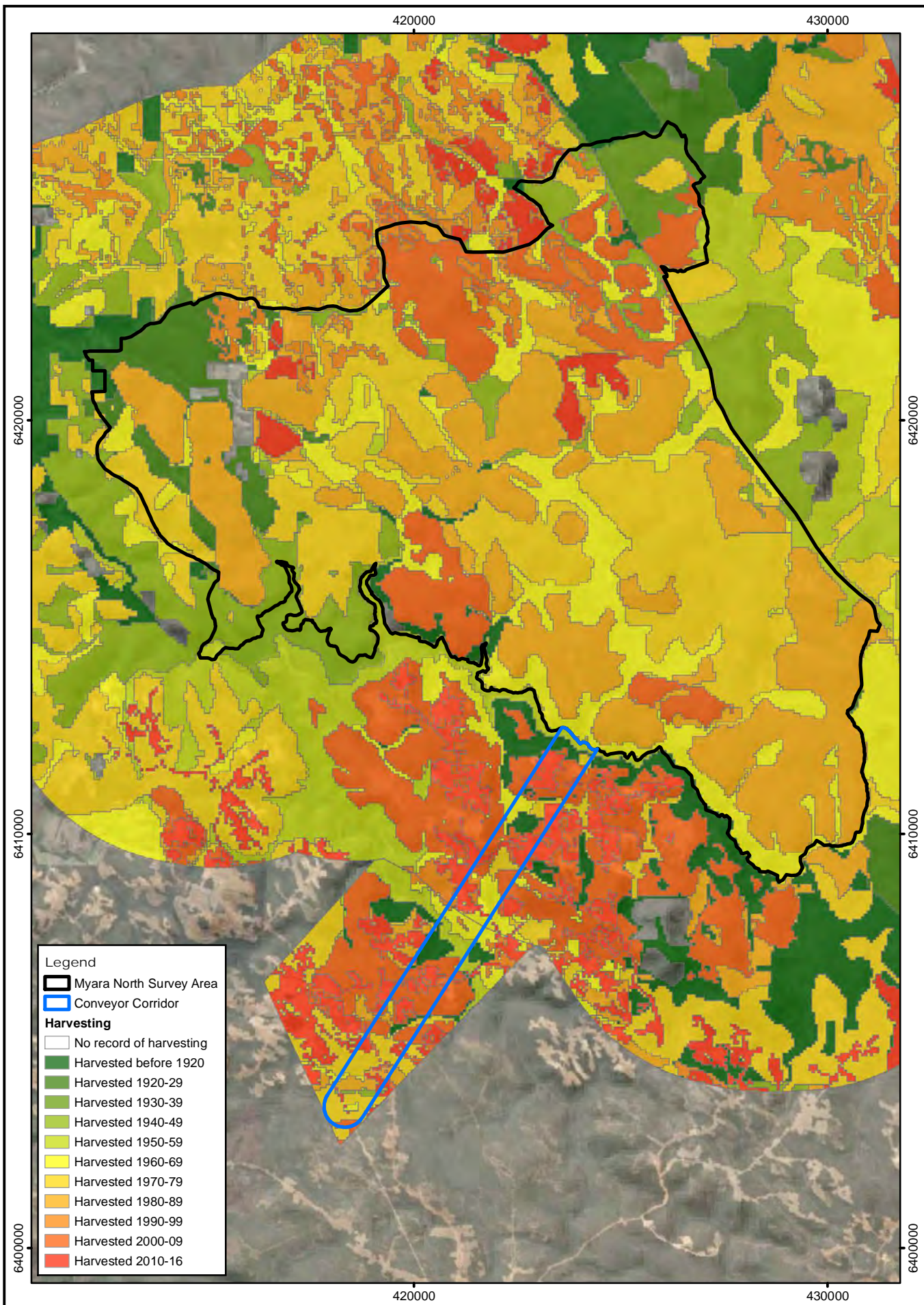
- MN Survey Area
- MN Conveyor Corridor
- Old Growth Forest

N
 0 2 4 km
 Scale: 1:250,000
 MGA94 (Zone 50)
 CAD Ref: a1992_MyNth_F01_09
 Date: March 2021 Rev: A | A4

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Old Growth Forests
 (as defined by DBCA 2020)

Figure:
9



N
0 1 2 km
Scale: 1:125,000
MGA94 (Zone 50)

CAD Ref: a1992_MyNth_F01_11
Date: May 2021

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Harvest History
(as defined by DBCA 2020)

Figure:
10

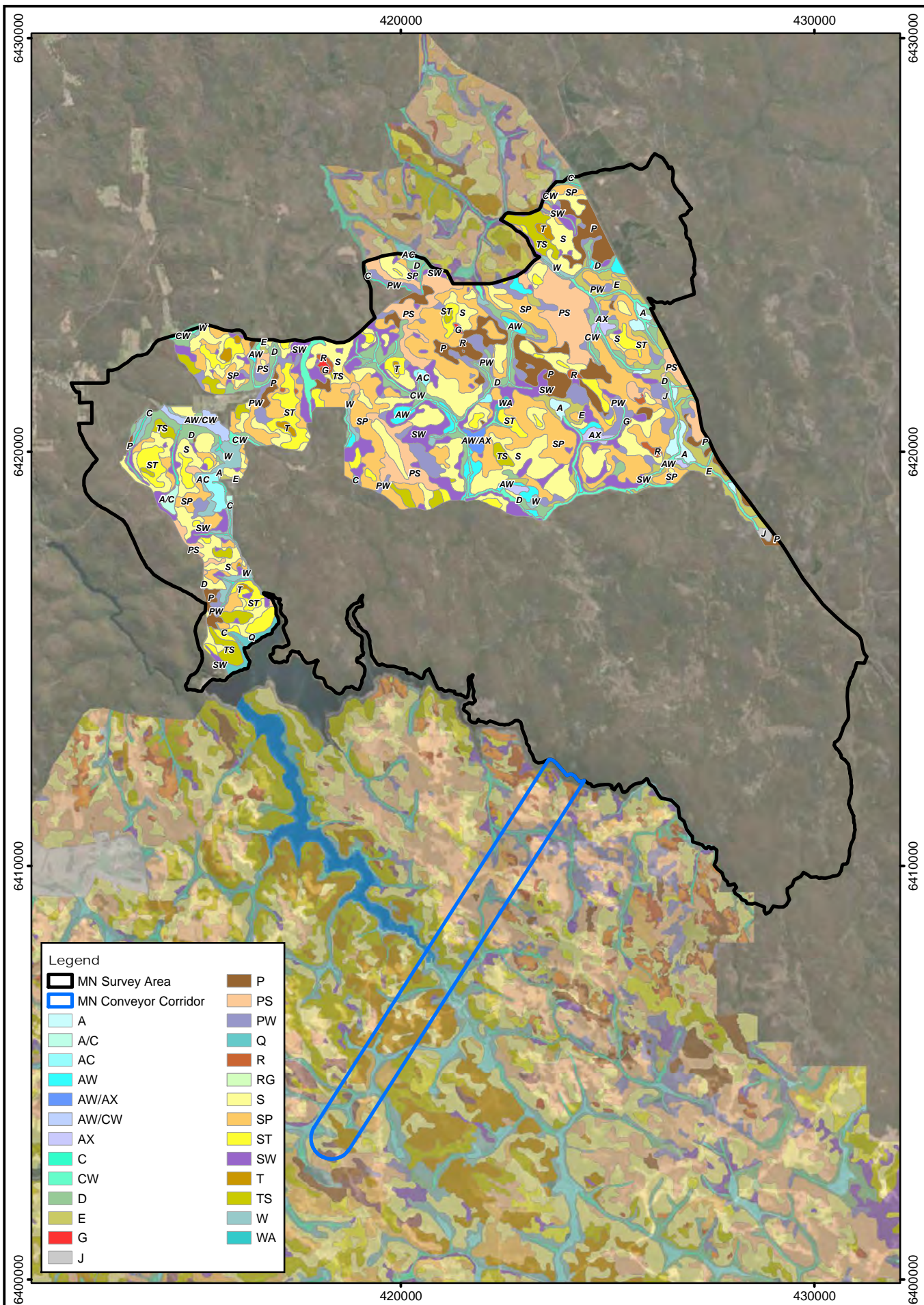
4.8. Previous Surveys

Over the past forty years, Mattiske Consulting has previously mapped the vegetation associated with the Jarrahdale, Huntly (including previous eastern Myara extensions) (E.M. Mattiske and Associates 1988, 1992, 1993 and Mattiske Consulting Pty Ltd 2009, 2011, 2012 and 2019). The most recent local and specific flora and vegetation studies relevant to this current survey, were surveys of the Myara region of the Huntly Mine 2012 and 2019. The Myara survey area (Mattiske Consulting Pty Ltd 2012) report, was compiled from field data collected from 2008, 2009, 2010, 2011 and 2012. During the 2012 survey no threatened flora were recorded, but six priority flora were recorded. These priority species were: *Acacia drummondii* subsp. *affinis* (P3), *Calothamnus rupestris* (P4 in 2012, no longer listed as a priority), *Cyathochaeta teretifolia* (P3), *Senecio leucoglossus* (P4), *Stylidium ireneae* (P4) and *Stylidium longitubum* (P4). The 2019 survey identified three priority 4 flora species; *Grevillea pimeleoides*, *Laslopetalum cardiophyllum* and *Senecio leucoglossus*. Twenty-three vegetation types were defined and mapped within the MN survey area.

A total of 23 site-vegetation types were defined and mapped in the northern section of the MN survey area by E.M. Mattiske and Associated (1992). This mapping covered the Chandler, South Jarrahdale and Kingsbury Drive areas. The dominant site-vegetation types were P, PS, S, SP, ST and SW (Appendix E for descriptions). Together these covered some 66.34% of the survey area reflecting the dominance of lateritic soils supporting varying types of *Eucalyptus marginata* - *Corymbia calophylla* with mosaics of *Allocasuarina fraseriana*. The more extreme sites associated with swamps (types A, C, AC, AW and AX and variants) or granite outcrops (types G, RG and R) covered less than 11% and 1% of the area respectively, Figure 11 and Table 7. This is likely to change for the eastern part of MN survey area in view the extensive areas of granite outcrops. The potential presence of several threatened and priority flora species associated with these granite areas are more likely to occur in the eastern section of the MN survey area.

Table 7: Summary of Previous Site-vegetation Types (SVT) mapped by E.M. Mattiske and Associates (1992)

SVT Code	Description	Area_Ha	% Total
A	Open Woodland of <i>Melaleuca preissiana</i> with dense understorey of Myrtaceae species, <i>Hakea varia</i> and sedge species on swamp areas.	74.85	1.13
A/C	Mosaic of A and C site-vegetation types.	19.74	0.30
AC	Open Woodland of <i>Melaleuca preissiana</i> - <i>Banksia littoralis</i> with dense understorey of Myrtaceae species on swamps and creeklines.	52.07	0.79
AW	Open woodland of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus marginata</i> – <i>Banksia littoralis</i> with low mixed understorey on sandy to loam soils on valley floors.	120.49	1.82
AW/AX	Mosaic of AW and AX site-vegetation types.	21.19	0.32
AW/CW	Mosaic of AW and CW site-vegetation types.	37.87	0.57
AX	Open Woodland of <i>Eucalyptus rudis</i> – <i>Melaleuca preissiana</i> with dense understorey of mixed <i>Melaleuca</i> species on clay soils in swamps.	43.44	0.66
C	Woodland of <i>Melaleuca</i> species - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines.	55.11	0.83
CW	Woodland to Open Forest of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.	298.95	4.52
D	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Babingtonia camphorosmae</i> and <i>Acacia extensa</i> on clay loams to gravelly clay-loams.	371.80	5.62
E	Open Forest to Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Kingia australis</i> , <i>Mesomelaena tetragona</i> and <i>Babingtonia camphorosmae</i> on sandy gravels on lower slopes.	268.80	4.06
G	Mosaic of Open Woodland of <i>Eucalyptus marginata</i> – <i>Corymbia calophylla</i> , mixed Proteaceae – Myrtaceae heath and Lithic Complex associated with granite outcrops.	8.88	0.13
J	Open Woodland to open forest of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over <i>Mesomelaena tetragona</i> , <i>Leptocarpus scariosus</i> , <i>Babingtonia camphorosmae</i> and <i>Stirlingia latifolia</i> on broad sandy-loam flats valley slopes.	9.47	0.14
P	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Grevillea wilsonii</i> and <i>Adenanthos barbiger</i> and low shrubs, herbs and sedges on sandy gravels.	412.19	6.23
PS	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> and <i>Grevillea wilsonii</i> on sandy gravel soils.	505.96	7.65
PW	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Grevillea wilsonii</i> , <i>Adenanthos barbiger</i> , <i>Babingtonia camphorosmae</i> and <i>Hypocalymma angustifolium</i> on moister sandy gravels.	364.41	5.51
Q	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> on lower slopes with mixed understorey species, including <i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i> , <i>Acacia extensa</i> and <i>Phyllanthus calycinus</i> on seasonally moister loamy soils.	37.62	0.57
R	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> on fringes of granite outcrops or shallow soils.	33.38	0.50
RG	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with patches of Heath of Proteaceae – Myrtaceae species on fringes of granite outcrops or shallow soils.	0.65	0.01
S	Open Forest of <i>Eucalyptus marginata</i> - <i>Banksia grandis</i> – <i>Allocasuarina fraseriana</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Leucopogon capitellatus</i> and <i>Styphelia tenuiflora</i> on gravels and sandy-gravels.	1174.78	17.76
SP	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> and <i>Leucopogon capitellatus</i> on sandy-gravels to gravelly soils.	1300.38	19.65
ST	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon capitellatus</i> , <i>Leucopogon verticillatus</i> , <i>Lasiopetalum floribundum</i> and <i>Styphelia tenuiflora</i> on sandy-gravelly soils.	400.01	6.05
SW	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Hypocalymma angustifolium</i> and <i>Styphelia tenuiflora</i> on seasonally moister sandy-gravelly soils.	595.63	9.00
T	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly soils.	38.23	0.58
TS	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Banksia grandis</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly to gravelly soils.	216.91	3.28
W	Open Forest of <i>Eucalyptus marginata</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Acacia extensa</i> and <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.	144.45	2.18
WA	Open woodland of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus marginata</i> – <i>Banksia littoralis</i> including <i>Hypocalymma angustifolium</i> and range of Myrtaceae species on sandy loam lower slopes.	8.82	0.13
Total		6618.08 Ha	



Legend

MN Survey Area	P
MN Conveyor Corridor	PS
A	PW
A/C	R
AC	RG
AW	S
AW/AX	SP
AW/CW	ST
AX	SW
C	T
CW	TS
D	W
E	WA
G	
J	

N
 0 1 2 km
 Scale: 1:125,000
 MGA94 (Zone 50)
 CAD Ref: a1992_MyNth_F03_01
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**Previous Site-Vegetation
 Type Mapping in Myara
 North survey area**

4.9. Potential Threatened and Priority Ecological Communities

There are four threatened ecological communities (TECs) listed at Commonwealth level pursuant to sections 181 and 182 of the *EPBC Act* and listed by the DAWE (2020e) or at State level pursuant to Part 2 of the *BC Act* and as listed by DBCA (2018b) with the potential to occur within the MN survey area.

The threatened ecological communities with the potential to occur within the survey area are:

- Banksia Woodlands of the Swan Coastal Plain ecological community
- *Corymbia calophylla* - *Kingia australis* woodlands on heavy soils of the Swan Coastal Plain
- *Corymbia calophylla* - *Xanthorrhoea preissii* woodlands and shrublands of the Swan Coastal Plain
- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain Ecological Community

None of the above mentioned TECs would occur in the MN survey area, as these threatened ecological communities are restricted to the Swan Coastal Plain and as such do not extend into the Jarrah forest area on the Darling Ranges.

There are two priority ecological communities (PECs), as listed at State level by DBCA (2020a) that occur within the MN survey area (Figure 8); only one of these is a botanical PEC. The PEC on the granite outcrops has potential to occur elsewhere in the survey area. The litter dependent invertebrate PEC is not a botanical community and is not addressed further in this report.

The priority ecological communities that occur in the MN survey area are:

- Granite communities of the northern Jarrah forest (P3)
 - Jarrahdale area – Monadnocks, Blue Rock; insufficient information to distinguish discrete community type/s (DBCA 2020a).
- Litter Dependant Invertebrate Community of the northern Jarrah Forest (P2)
 - Chandler Block, Northern Jarrah Forest; insufficient evidence that this is a discrete community type (DBCA 2020a).

4.10. Wetlands of International Importance (Ramsar)

The Peel-Yalgorup System, a listed Ramsar Wetland of International Importance, is located in the City of Mandurah local government area and consists of shallow estuaries, freshwater marshes and coastal saline lakes that include the Harvey Estuary, Peel Inlet, Lake McLarty, Lake Mealup and ten Yalgorup National Park wetlands (DAWE 2020f). The fringing vegetation is mainly samphire, rushes, sedges and paperbark communities. The Peel-Yalgorup System supports a wide variety of waterbirds, invertebrates and estuarine and marine fish and is considered the most important area for waterbirds in south-western Australia (DAWE 2020f). Whilst these potential values were recognized in the PMST database search (DAWE 2020b) these wetlands occur west of the survey area and not in the MN survey area.

5. FIELD STUDIES FINDINGS

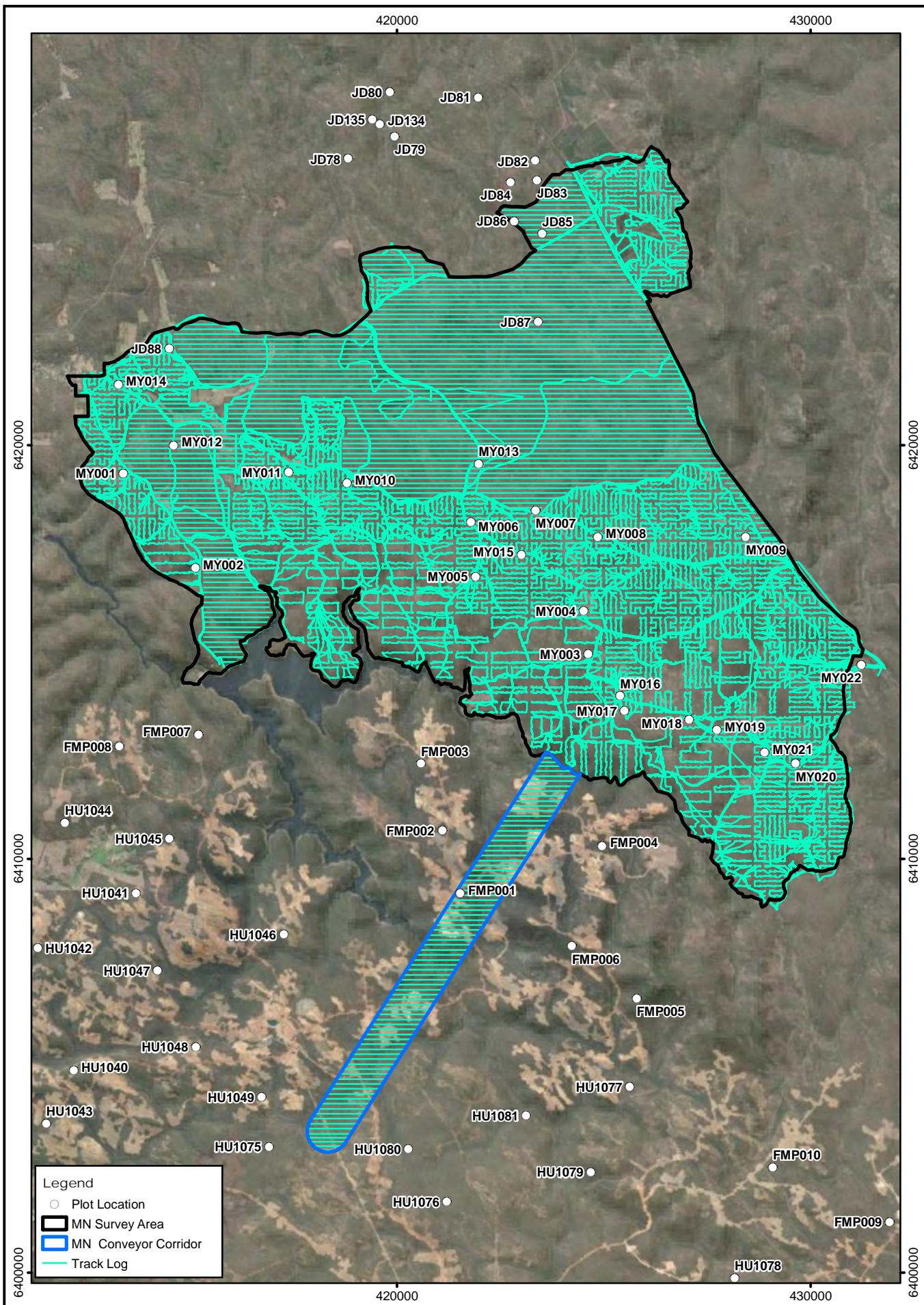
The following text summarises the key findings from recent studies in 2020 as well as the previous datasets collected from flora and vegetation studies within and near the MN survey area; which includes recording sites for vegetation mapping, vegetation plot measurements and opportunistic and targeted assessments.

5.1 Survey Effort

The survey efforts has been undertaken over a decade from multiple studies with the major effort in 2020 which when combined with the depth of previous studies in adjacent areas for both Alcoa and also other clients leads to the conclusion that the work exceeds the current EPA Guidance Statement (2016a and 2016b) expectations for flora and vegetation studies.

The survey effort to date has included (see Figure 12):

- . A total of 302 field assessment days in 2020 which when combined with earlier studies in the northern section and on the corridor amounts to more than 360 field assessment days and as such provides a comprehensive coverage of all areas;
- . 13,556.79 kilometres of foot transects which includes all previous mapping efforts in the MN survey area;
- . 6121 recording sites in 2020 on a grid system which varied slightly from 120m x 120m with some sites closer than this average and some slightly wider. If all sites on the northern section and those on the corridor are included the number of recording sites exceeds 6400 recording sites. This pattern of recording is consistent with previous ecological studies in the northern Jarrah forest for both Alcoa but also other clients in nearby areas such as 31 Mile Creek on the southern edges of the Canning River (north-west of current survey area), the Wungong catchment to the west and the extensive mapping undertaken for Alcoa over several decades to the west and south of the MN survey area;
- . 22 permanent plots within the recently mapped MN area, 74 permanent plots in the Myara and Huntly area, 10 forest permanent plots in the wider Myara and Huntly areas and 14 in the Jarrahdale area (including those within the northern section of the current MN survey area); resulting in a total of 120 plots within the Myara/Huntly Region. These plots covered replicates of the dominant forest areas and representative plots in other key site-vegetation types. Nineteen plots from nearby MN survey area were included with the previous plots and the Myara plots as established in 2020 within the MM survey area. As indicated in the previous section the recording sites enabled increased coverage of the outcrop, swamp and valley systems for the flora than the plots;
- . targeted searches were undertaken throughout the survey area during the broader vegetation mapping but also on additional extreme sites that were variable within the broader Yarragil and Swamp vegetation complexes and on the granite and outcropping areas in the MN survey area. The coverage of the flora on the granite and swamp areas relied on the recording sites rather than plots as these areas were locally variable and patchy in both structural and floristic components;
- . detailed and consistent data collection on position in the landscape, soils, flora, vegetation and vegetation condition; and
- . consistent interpretation in line with previous site-vegetation studies where there is a greater reliance on key indicator species and a series of site parameters rather than the accepted clustering and groupings. Such an approach differs from the EPA guidance statement, but if the NVIS approach was followed the dominance of some tree and understorey species in the analyses would lead to a less comprehensive delineation of biodiversity values and also be inconsistent with the approach adopted on all other Alcoa leases where detailed flora and vegetation studies have been undertaken in the past by the Mattiske team and site personnel. In summary, the survey effort easily exceeds the expectations of the EPA Guidance Statement (2016a, 2016b).



Legend

- Plot Location
- ▭ MN Survey Area
- ▭ MN Conveyor Corridor
- ▭ Track Log

N
 0 1 2 km
 Scale: 1:125,000
 MGA94 (Zone 50)

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Tracks and Plots in North Myara survey area

Figure:
12

5.2 Flora

The range of flora collected to date on the MN survey area is summarized in Table 8, Appendices F, H and I. As the survey efforts were undertaken over multiple years and also seasons the coverage of the flora was considered to exceed the EPA (2016a and 2016b) guidance statements expectations. The recent vegetation plots were established in the spring months and as the recordings on the grids was undertaken over a 6 month period the coverage of the flora in more diverse and spatially more complex areas such as the swamps, broad valley systems and the outcrops was considered to be comprehensive.

From the field studies associated with mapping and the plots a total of 543 taxa and 438 taxa respectively (see Table 8) were recorded. A total of 681 taxa from 69 families, 231 genera were recorded in the MN survey area in 2020 on the basis of plots, targeted searches and recording sites.

Table 8: Summary of Flora Species on the Myara North survey areas

(see Appendices F, H and I)

Source	Families	Genera	Native Taxa	Introduced Taxa
Myara Plots 2020	55	172	438	17
Myara/Huntly Regional Forest Plots	55	160	360	18
Myara Vegetation Mapping 2020	65	199	543	15
Myara/Huntly Regional Mapping	73	246	731	38
Nature Map Potential Flora Species (Appendix B)	94	351	1168	149
Nature Map and Additional Potential and recorded Species (see Appendix B)	108	412	1454	192

The occurrence of species in the respective site-vegetation types within the plots and the recordings sites are summarized in Appendices H and I.

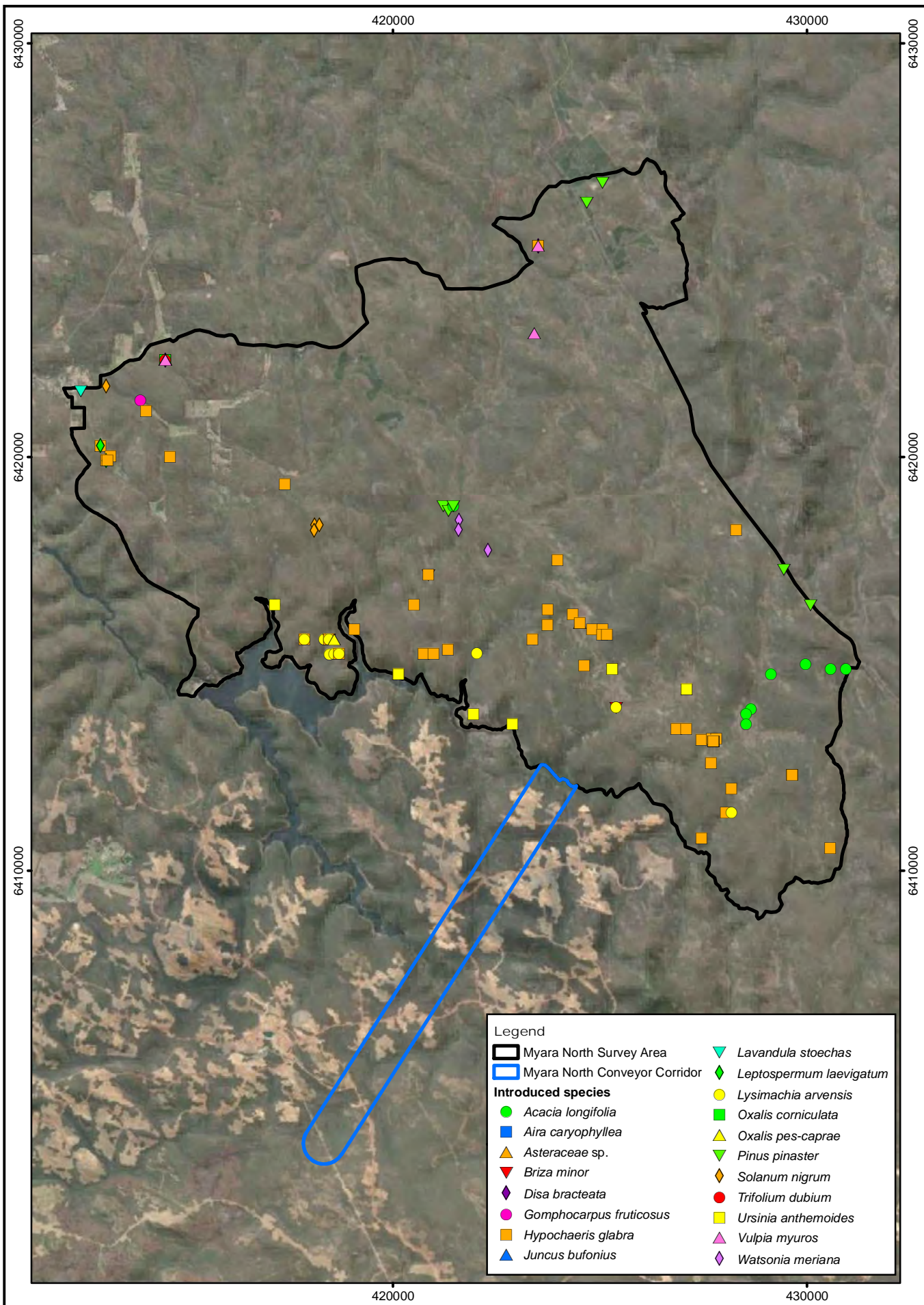
5.3 Introduced Flora Species

The detailed flora and vegetation survey included baseline weed mapping. A total of 58 introduced were recorded in the MN survey. One of the introduced species are declared pest organisms pursuant to section 22 of the BAM Act, namely: **Gomphocarpus fruticosus*, Appendix G (DPIRD 2020), Figure 13. None of the introduced species are listed as a Weed of National Significance (WONS) (DAWE 2020d). Of the 58 introduced species, 8 have been ranked as High Ecological Impact by DPAW (2014), Appendix G, and Table 9. Of the 58 introduced species, 24 have been ranked as Rapid Invasiveness by DPAW (2014) Appendix G.

Many of these species are short lived annuals or associated with the cleared or plantation areas. The species that are either declared weeds (DPIRD 2020) or have a High Ecological Impact are summarised in Table 9. Of these the **Gomphocarpus fruticosus* is found near cleared and degraded areas, **Leptospermum laevigatum* is found within previous disturbance and tracks, **Watsonia meriana* is associated with valley floors and creek lines. The remainder are associated with degraded and completely degraded areas and fringes of road and tracks.

Table 9: Summary of Weeds of National Significance, Declared Weeds or Introduced Flora with a High Ecological Impact (see Appendix G)

SPECIES	WONS Weeds (DAWE 2020d)	Weeds Status (DPIRD 2020)	EI (DPAW 2014)
* <i>Gomphocarpus fruticosus</i>	N	Declared Pest - s22(2)	U
* <i>Acacia dealbata</i> subsp. <i>dealbata</i>	N	Permitted -s11	H
* <i>Leptospermum laevigatum</i>	N	Permitted -s11	H
* <i>Watsonia meriana</i>	N	Permitted -s11	H
* <i>Avena fatua</i>	N	Permitted -s11	H
* <i>Cynodon dactylon</i>	N	Permitted -s11	H
* <i>Oxalis pes-caprae</i>	N	Permitted -s11	H
* <i>Plantago lanceolata</i>	N	Permitted -s11	H
* <i>Romulea rosea</i>	N	Permitted -s11	H



N
0 1 2 km
Scale: 1:125,000
MGA94 (Zone 50)

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Introduced Species
Myara North Survey Area

Figure:
13

5.4 Threatened and Priority Flora

No Threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DAWE (2020a) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2018a) were recorded during the detailed flora and vegetation survey of the MN survey area. The location of known populations from DBCA (WAH and TPFL 2020c) records and from recent assessments are illustrated on Figures 16.3 to 16.9 and overlain on the site-vegetation types. The lack of threatened flora is key outcome of the survey effort and as such reinforces the desktop assessment which found a moderate to low likelihood of threatened flora occurrence and the occurrence of the threatened in the western area on the Swan Coastal Plain, rather than the Darling Ranges on the Darling Plateau.

Fourteen Priority flora species as listed by DBCA (2018c) have been recorded in the MN survey area (Appendices H and I), Table 10, Figures 16.3 to 16.9. Additional Priority flora species (*Acacia oncinophylla* subsp. *oncinophylla*, *Boronia tenuis*, *Bossiaea modesta*, *Banksia recurvistylis*, *Grevillea crowleyae*, *Grevillea manglesii* subsp. *dissectifolia* and *Grevillea pimeleoides*) were recorded on the fringes of the MN survey area, Table 10, Figures 16.3 to 16.9. The populations and numbers of plants are summarized in Table 10.

The results summarized reflect the importance of the granite outcrop areas (G) and the sandier and sandy-gravel soils (D, DA, E, P, PW, PS), Table 10. A few of the Priority species occur on the more gravelly soils (S, SP and T). A further summary for all of these species is provided in Appendices C, H and I and Table 10. Several species (*Pimelea* sp., *Thysanotus* sp. and *Stylidium* sp.) lacked definitive flowering and fruiting material and as such could not be confirmed that these were not Priority species.

There is a higher concentration of the Priority flora species on the eastern fringes of the MN survey area supports species that are more tolerant of sandier soils and outcrops.

TABLE 10: SUMMARY OF THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. The absence in the Vegetation Complex and Site-Vegetation Type (SVT) columns reflects the absence within the Myara North survey area. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SC C	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Vegetation complex Occurrence within Myara North survey area	SVT Codes within Myara Survey Area	No. Populations & No. Plants
<i>Anthocercis gracilis</i>	Solanaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. Recorded in Dwellingup 1 in wider Jarrah forest. Mainly near granites (Florabase records) and less likely in lateritic gravels.			
<i>Diuris drummondii</i>	Orchidaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On swamps and not likely in lateritic soils.			
<i>Diuris micrantha</i>	Orchidaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On swamps and not likely in lateritic soils.			
<i>Eleocharis keigheryi</i>	Cyperaceae	T	V	Moderate	Not recorded within MN area previously or during 2020 and earlier studies. On seasonally wetter areas and not likely in lateritic soils.			
<i>Grevillea flexuosa</i>	Proteaceae	T	V	Moderate	Recorded in Cooke, Ce in wider Jarrah forest. Mainly associated with granites.			
<i>Lasiopetalum pterocarpum</i>	Malvaceae	T	E	Moderate	Recorded on Darling Scarp, DS2, Murray 1, My1 and Helena 1, He1, so may extend to granite outcrops. Not in lateritic soils.			
<i>Verticordia fimbriolepis</i> subsp. <i>fimbriolepis</i>	Myrtaceae	T	E	Moderate	Recorded in Swamps, S in wider Jarrah forest. Some potential in lateritic soils.			
<i>Verticordia plumosa</i> var. <i>ananeotes</i>	Myrtaceae	T	E	Moderate	Not recorded within MN area North previously or during 2020 and earlier studies. Not likely in lateritic soils.			

TABLE 10: SUMMARY OF THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. The absence in the Vegetation Complex and Site-Vegetation Type (SVT) columns reflects the absence within the Myara North survey area. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Vegetation complex Occurrence within Myara North survey area	SVT Codes within Myara Survey Area	No. Populations & No. Plants
<i>Andersonia</i> sp. <i>Saxatilis</i> (F. & J. Hort 3324)	Ericaceae	P1	-	High	Recorded on Dwellingup 2, D2 and Cooke, Ce	Recorded in Dwellingup 2, D2 and Cooke, Ce. Potential on granites and lateritic soils.	G	4 (Estimated 6270)
<i>Calytrix simplex</i> subsp. <i>simplex</i>	Myrtaceae	P1	-	Moderate	Recorded in Dwellingup 2, D2 within wider Jarrah forest. Potential in lateritic soils.			
<i>Paracaleana gracilicordata</i>	Orchidaceae	P1	-	High	Not likely in lateritic soils as associated mainly with outcrops (may be localised small occurrences in Dwellingup 2, D2, Pindalup, Pn) but more likely in Cooke, Ce.	Recorded on Dwellingup 2, D2 on mainly granite.	G S	6 (Estimated 567)
<i>Paracaleana granitica</i>	Orchidaceae	P1	-	High	Mainly on granite outcrops, not in lateritic soils, may be in other complexes if small localised outcrops that are small in size (Dwellingup 2, D2).	Recorded on Dwellingup 2, D2, Pindalup, Pn, and Murray 1, My1 mainly on granite.	G T D P	7 (Estimated 759)
<i>Banksia recurvistyliis</i>	Proteaceae	P2	-	High	Recorded in Cooke, Ce and Dwellingup 2, D2 within wider Jarrah forest. Less likely in deeper lateritic soils. Recorded just east of survey area.			
<i>Grevillea crowleyae</i>	Proteaceae	P2	-	High	Not recorded within MN previously or during 2020 and earlier studies. East of area in Dwellingup 2, D2 and just south of Jarrahdale.			
<i>Grevillea manglesii</i> subsp. <i>ornithopoda</i>	Proteaceae	P2	-	High	Recorded in Dwellingup 1, D1 and Murray 1, My1, less likely in deeper lateritic soils.	Recorded on Dwellingup 1, D1, mainly on granite.	G	1 (unknown)

TABLE 10: SUMMARY OF THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. The absence in the Vegetation Complex and Site-Vegetation Type (SVT) columns reflects the absence within the Myara North survey area. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Vegetation complex Occurrence within Myara North survey area	SVT Codes within Myara Survey Area	No. Populations & No. Plants
<i>Millotia tenuifolia</i> var. <i>laevis</i>	Asteraceae	P2	-	Moderate	Recorded in Dwellingup 2, D2. Potential in lateritic and granite soils.			
<i>Tetradlea phoenix</i>	Elaeocarpaceae	P2	-	Moderate	Recorded in mainly Cooke, Ce and occasionally in Dwellingup 4, D4 in wider Jarrah forest area. Most likely on granite. Not likely in deeper lateritic soils.			
<i>Acacia drummondii</i> subsp. <i>affinis</i>	Fabaceae	P3	-	Moderate	Potential in lateritic soils. Recorded in Yarragil 1 within wider Jarrah forest.	Recorded on Dwellingup 1, D1, mainly on lateritic soils associated with Dwellingup 2, D2, Cooke, Ce and Yarragil, Yg2	S PS D	3 (Estimated 5 to 10)
<i>Acacia horridula</i>	Fabaceae	P3	-	Moderate	Recorded in Dwellingup2, D2, Yarragil 1, Yg1, and Darling Scarp, DS2 in wider Jarrah forest. Potential in lateritic soils.	Recorded in Swamp, S.	AD	1 (Estimated 2-5)
<i>Acacia oncinophylla</i> subsp. <i>oncinophylla</i>	Fabaceae	P3	-	High	Recorded in Dwellingup 1, D1 in wider Jarrah forest. More likely on granites (Florabase, WAH 1998-). On northern fringes of MN.			
<i>Andersonia</i> sp. Audax (F. Hort, B. Hort & J. Hort 3179)	Ericaceae	P3	-	High	Recorded on Dwellingup 1, D1, Dwellingup 2, D2, Dwellingup 4, D4, Yarragil 2, Yg2, Swamp, S, Yarragil 2, Yg2 and Cooke, Ce. Potential in lateritic soils.	Recorded on Cooke, Ce, Dwellingup 2, D2, and Swamp, S in wider range of soils.	G E P PL	4 (Estimated 17646)
<i>Conospermum scaposum</i>	Proteaceae	P3	-	Moderate	Recorded in Yarragil 2, Yg2. Not likely in lateritic soils.	Recorded on Yarragil, Yg2 in broad valleys.	DA	1 (Estimated 2-5)

TABLE 10: SUMMARY OF THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. The absence in the Vegetation Complex and Site-Vegetation Type (SVT) columns reflects the absence within the Myara North survey area. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Vegetation complex Occurrence within Myara North survey area	SVT Codes within Myara Survey Area	No. Populations & No. Plants
<i>Grevillea manglesii</i> subsp. <i>dissectifolia</i>	Proteaceae	P3	-	Moderate	Recorded in in Dwellingup, D1, Murray 1, My1, Cooke, Ce and Pindalup, Pn. Potential in lateritic soils. Recorded just east of survey area in D site-vegetation type.			
<i>Halgania corymbosa</i>	Boraginaceae	P3	-	Moderate	Recorded in Darling Scarp 2, DS2. Potential in lateritic soils.			
<i>Lasiopetalum glutinosum</i> subsp. <i>glutinosum</i>	Malvaceae	P3	-	Moderate	Recorded in Dwellingup 1, Darling Scarp 2, DS2 and Murray 1, My1 in wider area. Potential in lateritic soils.			
<i>Petrophile filifolia</i> subsp. <i>laxa</i>	Proteaceae	P3	-	Moderate	Recorded in Yarragil 1, Yg1 in wider area. Not likely in lateritic soils.			
<i>Pithocarpa corymbulosa</i>	Asteraceae	P3	-	Moderate	Recorded in Yarragil 2, Yg2, Dwellingup 2, D2 and Swamp, S. Not likely in deeper lateritic soils.			
<i>Stackhousia</i> sp. Red-blotched corolla (A. Markey 911)	Celastraceae	P3	-	Moderate	Recorded north of MN in Dwellingup 2, D2 in wider Jarrah forest. Potential for occurrence in lateritic soils.	Dwellingup 2, D2.	PS	1 (unknown)
<i>Synaphea pandurata</i>	Proteaceae	P3	-	Moderate	Recorded in Pindalup, Pn, Swamp, S and Dwellingup 2, D2 in wider Jarrah forest and earlier studies.			
<i>Thysanotus anceps</i>	Asparagaceae	P3	-	Moderate	Recorded in Murray 1, My1 and Dwellingup 1, D1 in wider Jarrah forest. Potential for occurrence in lateritic soils. Recorded south of survey area in SP site-vegetation type.			
<i>Boronia tenuis</i>	Rutaceae	P4	-	High	Recorded in Dwellingup 2, D2, Yarragil 1, Yg1 and Murray 1, My1 in wider Jarrah forest. Potential in lateritic soils in valleys and on granite outcrops.	Recorded on Dwellingup 2, D2 on Kinsella Road on fringes of survey area.	PL	1 (on fringes of survey area)
<i>Chorizema ulotropis</i>	Fabaceae	P4	-	Moderate	Recorded in Dwellingup 1, D1 and Dwellingup 2, D2 within wider Jarrah forest. Potential in lateritic soils.			

TABLE 10: SUMMARY OF THREATENED AND PRIORITY FLORA RECORDED IN THE MYARA NORTH SURVEY AREA (continued)

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; DAWE 2020a) conservation code definitions. The absence in the Vegetation Complex and Site-Vegetation Type (SVT) columns reflects the absence within the Myara North survey area. A range of species were included in the 20km radius desktop search and depending on location (based collections in State Herbarium - Florabase) and also site conditions were ranked as likelihood of Low, Moderate or High. SVT Code – site-vegetation code based on Havel (1975a and 1975b).

Species	Family	SCC	FCC	Likelihood of Occurrence	20km Radius Search Vegetation complex outside Occurrence	Vegetation complex Occurrence within Myara North survey area	SVT Codes within Myara Survey Area	No. Populations & No. Plants
<i>Grevillea pimeleoides</i>	Proteaceae	P4	-	High	Recorded in Murray 1, My1, Dwellingup1, D1, Dwellingup2, D2, Pindalup, Pn and Cooke, Ce in wider Jarrah forest. Although on outcrops, there is potential in lateritic soils. Recorded just east and south-west of survey area.			
<i>Hemigenia platyphylla</i>	Lamiaceae	P4	-	High	Recorded in Dwellingup 1, D1. Less likely in deeper lateritic soils. Potential in sandy-gravels.	Recorded in Dwellingup, D1.	PW	1 (Estimated 100)
<i>Lasiopetalum cardiophyllum</i>	Malvaceae	P4	-	Moderate	Recorded on sandy gravels and further east in wider Jarrah forest. May occur in lateritic soils.			
<i>Parsonsia diaphanophleba</i>	Apocynaceae	P4	-	Moderate	Recorded in Murray 1, My1 and Yarragil 1, Yg1 in wider Jarrah forest. Less likely in lateritic soils.			
<i>Pimelea rara</i>	Thymelaeaceae	P4	-	High	Recorded in Dwellingup, D1, Dwellingup 2, D2, Murray 1, My1, Yarragil 1, Yg1, Yarragil 2, Yg2, and to a lesser degree Cooke, Ce in wider Jarrah forest. Potential to occur in lateritic soils.	Recorded on Yarragil 1, Yg1, Dwellingup, D2, and Yarragil 2, Yg2 on slopes and valleys.	D ST S	3 (Estimated 132)
<i>Stylidium ireneae</i>	Stylidiaceae	P4	-	Moderate	Recorded in Yarragil 1, Yg1 and Yarragil 2, Yg2 in wider Jarrah forest ranked as moderate. Not likely in lateritic soils.	Recorded in Yarragil 1, Yg1	CW	1 (Estimated 2-5)
<i>Stylidium scabridum</i>	Stylidiaceae	P4	-	Moderate	Less likely in lateritic soils, although was recorded in Dwellingup complexes.	Recorded on Dwellingup 1, D1, Dwellingup 2, D2, Yarragil, Yg2, Goonaping, G in range of soils and site conditions.	D S PS P CW	6 (Estimated 107)

5.5 Potential Range Extensions

The following flora species occur as range extensions to current records on Florabase (WAH 1998-):

- . *Xanthosia tasmanica* occurs mainly south of the MN survey area;
- . *Stachystemon virgatus* occurs to the north-east of the MN survey area;
- . *Acacia browniana* var. *endlicheri* and *Acacia browniana* var. *intermedia* occurs to the east of the MN survey area;
- . *Cyrtostylis robusta* has been recorded in monitoring plots in Jarrahdale and Huntly/Myara area. As such this species occurs east of a population on the escarpment and also as an extension from southern forest areas and the identification may have been misapplied in plots in the past in the wider Huntly/Myara area.
- . *Conospermum scaposum* (P3) occurs mainly to the north-east of the MN area and as such are potential range extensions to the populations as defined on Florabase.
- . *Empodisma gracillimum* has been recorded in the wider Huntly/Myara plots near the MN survey area. As such this species is an extension from southern forest areas and the identification may have been misapplied in plots in the past in the wider Huntly/Myara area.
- . *Chorizema ilicifolium* has been recorded in the wider Huntly/Myara plots near the MN survey area. As such this species is a large extension from southern forest coastal areas and the identification may have been misapplied in plots in the past in the wider Huntly/Myara area.

All of these species are either range extensions from the east or the south and as such warrant further study in coming years. Of these species the Priority flora species *Conospermum scaposum* (P3) occurred in the DA site-vegetation type associated with lower slopes on the broad valley systems.

5.6 Site-vegetation Types

The interpretation of the vegetation in relation to underlying landforms, soils and climate is further analysed and summarized in Havel (2000). This approach has been used for some 45 years and as such to deviate from such an approach and rely on other approaches would negate the effort to date and the ability to align the findings with other areas in the northern Jarrah forest. This approach was discussed with representatives of the EPA, DWER and DBCA prior to commencement of the survey. It is acknowledged that the approach deviates somewhat from the strict application of EPA (2016) guidance statements, however the continuation of the site-vegetation approach ensures a consistent delineation of the biodiversity values across the Huntly Mine, and provides adequate information to support impact assessment. So whilst such an approach might be perceived by assessors to deviate from the EPA guidance statements, to not adopt the site-vegetation approach would diminish the delineation of the biodiversity values in the MN survey area. In addition the ranking of species and condition of species in the field has increased the intensity and coverage of the sites within the MN survey area.

The Jarrah forest on the slopes and ridges consists of a continuum of species that change in response to subtle changes in the underlying landform, soils and local site conditions. An analysis of the respective plots within the MN area and adjacent areas was analysed using Primer 7 with the Bray-Curtis algorithm (Clarke and Gorey 2015), Figures 14 and 15. The plots on the more marked extreme sites such as swamps and broad sandy valleys reflected lower similarity than the site-vegetation types (P, S, T and their variants) on the slopes and ridges. The approach adopted in the cluster analysis is usually applied to floristic analyses rather than the approach adopted defining site-vegetation types where subtle differences in keystone species and site conditions which were defined by Havel (1975a and 1975b) in earlier studies of the northern Jarrah forest and later refined and developed by Matisse since 1979. The concentration of plots occurred on the more dominant site-vegetation types on the lateritic sandy-gravels and gravels on the slopes and ridges and as such reflect the continuum nature of the vegetation with subtle changes in underlying site conditions being reflected by changes in rankings and presence or absence of respective keystone species, Figures 14. As indicated on the MDS there is a shift from those on the sandier drier sites of the S and PS types (grouping "c") to the sites associated with the moister and wetter sites (A, CW, E/D and DA types in groupings "m" and "a"). The other key factor appears to relate to the shift from the

sandier types such as PS, SP and DA (groupings “b” and “e” and “c” to the TS and ST types and CW on loamier soils (groupings “d” and “h” and “k”). The species occurrence, density and foliage cover for the respective plots within the main site-vegetation types is summarised in Appendix J. The maps as presented in Figures 16.3 to 16.9 reflect the shift from west to east with more undulating slopes and valley systems in the western and southern areas and less undulating slopes and valley systems in the eastern and north-eastern areas.

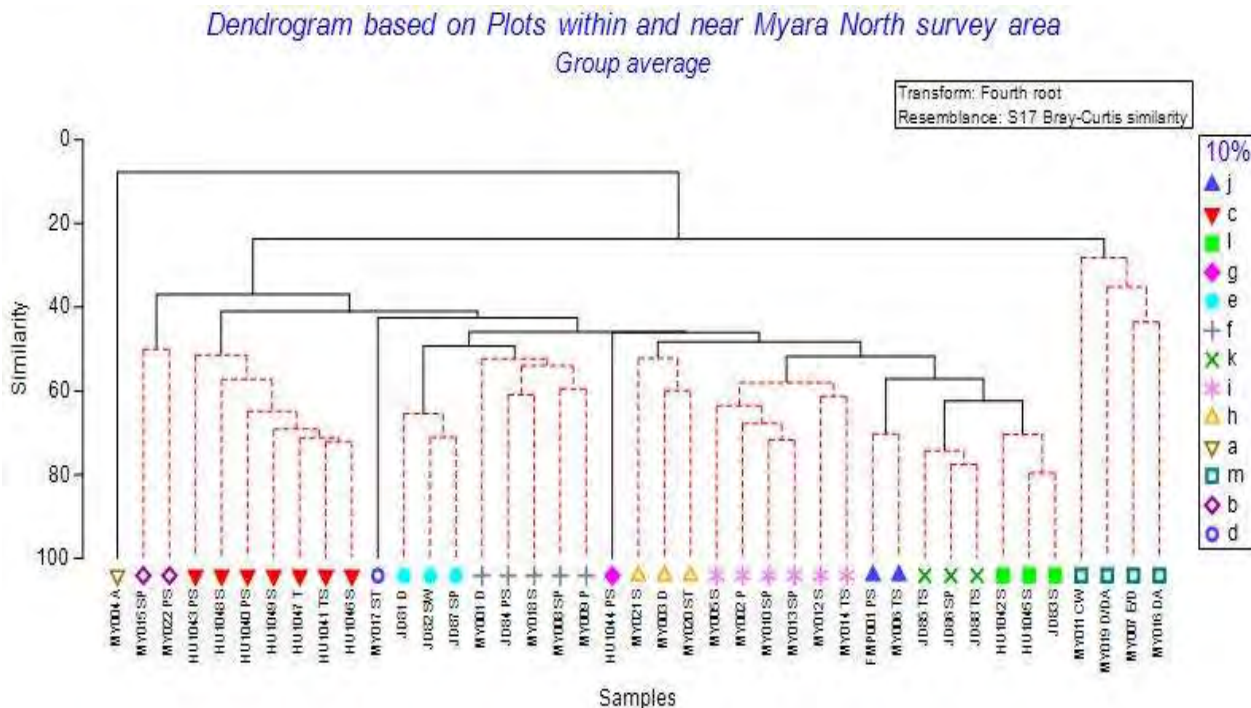


Figure 14: Dendrogram based on Plots within and near Myara North survey area

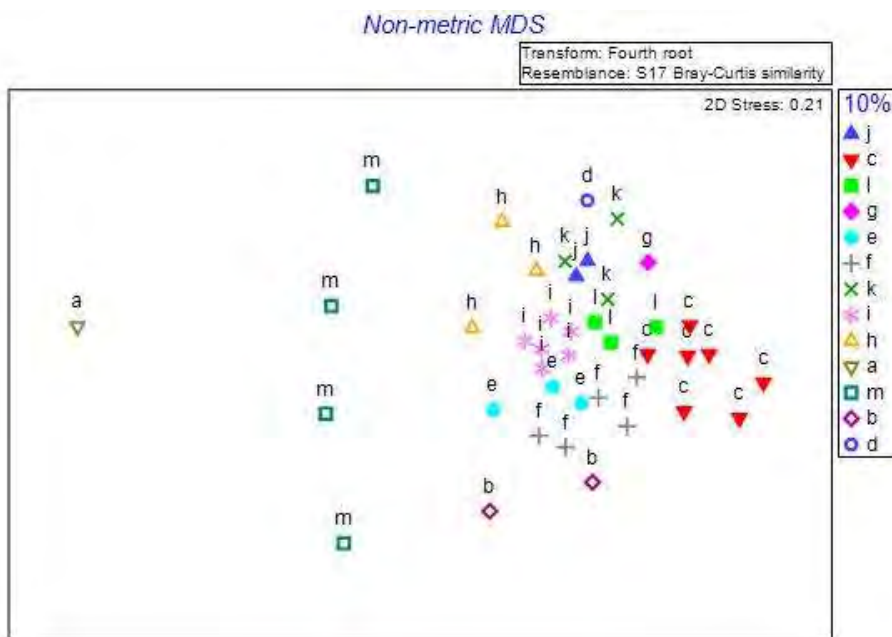


Figure 15: Non-Metric MDS based on Plots within and near Myara North survey area

Context mapping is provided for the conveyor corridor, in accordance with EPA (2016) guidance. The mapping is based on pre-mining mapping for the Myara region and Alcoa mapping of mined and rehabilitated areas, and has not been subject to detailed survey as part of the MN survey. A total of 32 site-vegetation types have been recorded at specific sites in the MN survey area, Table 11 and Figures 16.1 to 16.9.

The site-vegetation types were subdivided into six main groupings associated with site conditions which reflected landforms, soils and soil moisture levels, Table 11. The site-vegetation types on the extreme sites such as granite outcrops and broad valley systems and swamps differ markedly from the forest and woodland areas on the slopes and ridges. The delineation of the site-vegetation types was based on the earlier work of Havel (1975a and 1975b) and as such rely on key site and species indicators. Whilst Mattiske has refined these initial site-vegetation types there is still a reliance on the original work of Havel (1975a and 1975b). The initial code is the dominant site-vegetation type code and the second code (where added) reflects some local influence of secondary key stone species. These site-vegetation types were developed **in consultation with Dr David Goodall. In the 1970's Dr Havel and Dr Goodall undertook extensive analyses** to delineate and differentiate the key species and site parameters that assist in the division of the continuum of the dominant trees of *Eucalyptus marginata* (Jarrah) and *Corymbia calophylla* (Marri).

The G, G1, G2, RG and R site-vegetation types are associated with the granite outcrop areas as indicated in 5.4 above these areas support a range of conservation significant species. The larger more spatially extensive areas of granite outcrops were integrated and mapped as the Cooke vegetation complex by Heddl et al. (1950) and Mattiske and Havel (1998). On a local scale the outcrop areas are locally very variable from lithic complexes to heaths to open woodlands. The species as recorded by Markey (1997) on the granite outcrops were compared with those recorded in the site-vegetation types G and R by Mattiske Consulting team in 2020. Of these the main keystone species include *Calothamnus quadrifidus*, *Borya sphaerocephala*, *Grevillea bipinnatifida*, *Allocasuarina humilis* and *Babingtonia camphorosmae*. Of these species the initial four species are associated with shallow soils and granite outcrops. The *Babingtonia camphorosmae* is associated with seasonally moister soils which may occur in a range of site conditions including near run-off areas near granite outcrops. The other native species recorded by Markey (1997) are more widespread and less site specific. The only current Priority Ecological Community is associated with the G, G1, G2, RG and R site-vegetation types. Not all of the areas as delineated and mapped by Mattiske in 2020 have been high-lighted by DBCA (2020a), see Figure 8. There is a lack of clarity on the values that determine the presence of the Priority Ecological Community other than the association with the outcrops.

The series of site-vegetation types associated with the broader valley systems which dominate the Yarragil 2 and Swamp vegetation complexes as defined by Mattiske and Havel (1998) provide a spatial diversity that supports a range of species (see Appendix H). There is potential for some of these site-vegetation types to be groundwater dependent ecosystems. The dominant site-vegetation types on the lateritic slopes and ridges include types P, PS, SP, S, ST, T and TS. Although these areas tend to be more extensive in local areas, these types also support other values associated with fauna habitat values (e.g. Black Cockatoos in the larger Jarrah, Blackbutt and Marri trees in these areas). The other areas of significance are the localised site-vegetation types that support specific and localised flora species. Examples of these more restricted communities are the site-vegetation types E and J that occur in more restricted areas within the broader valleys.

The remaining codes (CL, CL Other, Rehab, Dam and PL) are associated with modified environments.

Table 11: Summary of Site-vegetation Types (SVT) on the Myara North Survey Area

Note: where no area designated this site-vegetation type has been recorded at the isolated site but the area was too localised to map separately at the scale required for presentation.

	SVT Code	SVT Description	Myara North Survey Area (ha)	Myara North Corridor Area (ha)	Proportion of Survey Area (%)
Swamps and Broad Valleys	A	Tall shrubland of mixed <i>Melaleuca</i> spp., <i>Taxandria linearifolia</i> , <i>Hypocalymma angustifolium</i> , <i>Pericalymma ellipticum</i> with emergent <i>Melaleuca preissiana</i> on clay-loams in seasonally wet valley floors.	130.27	-	0.70
	AC	Open Woodland of <i>Eucalyptus rudis</i> – <i>Melaleuca preissiana</i> - <i>Eucalyptus patens</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on broad swamps and water-courses.	341.32	51.47	2.12
	AD	Low open woodland of <i>Eucalyptus rudis</i> and <i>Eucalyptus marginata</i> over <i>Banksia littoralis</i> , <i>Hakea prostrata</i> and <i>Pericalymma ellipticum</i> over low shrubs and herbs on leached sands over sandy-gravel on lower slopes.	289.73	-	1.56
	AW	Low open woodland of <i>Eucalyptus patens</i> and <i>Melaleuca preissiana</i> over <i>Banksia littoralis</i> , <i>Hakea prostrata</i> and <i>Taxandria linearifolia</i> over low shrubs and herbs on leached sands over sandy-gravel on lower slopes.	115.09	-	0.62
	AW/AX	Localized patchy mosaic of AW and AX.	21.19	-	0.11
	AW/CW	Localized patchy mosaic of AW and CW.	20.27	-	0.11
	WA	Open Forest of <i>Eucalyptus megacarpa</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Banksia littoralis</i> and occasional <i>Melaleuca preissiana</i> over <i>Acacia extensa</i> and <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.	8.82	-	0.05
	AX	Open woodland of <i>Eucalyptus rudis</i> over <i>Acacia saligna</i> , <i>Melaleuca incana</i> subsp. <i>incana</i> and <i>Hypocalymma angustifolium</i> on clay- loams on valley floors.	43.44	-	0.23
	D	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> - <i>Allocastrum fraseriana</i> - <i>Hakea prostrata</i> with <i>Xylomelum occidentale</i> on lower slopes with mixed low understorey species, including <i>Babingtonia camphorosmae</i> , <i>Daviesia decurrens</i> , <i>Daviesia preissii</i> and <i>Acacia extensa</i> on clay loams to gravelly clay-loams.	1106.58	0.81	5.97
	DA	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> - <i>Allocastrum fraseriana</i> - <i>Hakea prostrata</i> and <i>Xylomelum occidentale</i> on lower slopes with patches of <i>Melaleuca preissiana</i> , <i>Banksia littoralis</i> over mixed low understorey species, including <i>Babingtonia camphorosmae</i> and <i>Astartea scoparia</i> on clay loams to gravelly clay-loams.	168.88	-	0.91
	DG	Open forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over <i>Hakea lissocarpa</i> , <i>Macrozamia riedlei</i> , <i>Pericalymma ellipticum</i> , <i>Grevillea bipinnatifida</i> , <i>Acacia alata</i> , <i>Babingtonia camphorosmae</i> , <i>Hypocalymma angustifolium</i> and <i>Phyllanthus calycinus</i> on clay-loams on lower slopes with localized patches of outcropping.	11.77	1.75	0.07
	E	Open woodland of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over <i>Mesomelaena tetragona</i> , <i>Kingia australis</i> , <i>Leptospermum erubescens</i> and <i>Babingtonia camphorosmae</i> on sandy to sandy-loam soils on slopes.	328.34	-	1.77
	J	Open Woodland to open forest of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over <i>Mesomelaena tetragona</i> , <i>Leptocarpus scariosus</i> , <i>Babingtonia camphorosmae</i> and <i>Stirlingia latifolia</i> on broad sandy-loam flats valley slopes.	34.05	-	0.18
Valley Floors and Lower Slopes	C	Woodland to Open Forest of <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.	51.34	-	0.28
	CW	Woodland to Open Forest of <i>Eucalyptus patens</i> – <i>Eucalyptus megacarpa</i> - <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.	472.83	56.05	2.85
	W	Open Forest of <i>Eucalyptus megacarpa</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.	230.37	108.97	1.83
	Q	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> with mixed understorey species, including <i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i> , <i>Acacia extensa</i> and <i>Phyllanthus calycinus</i> on loam soils on lower slopes.	28.91	-	0.16

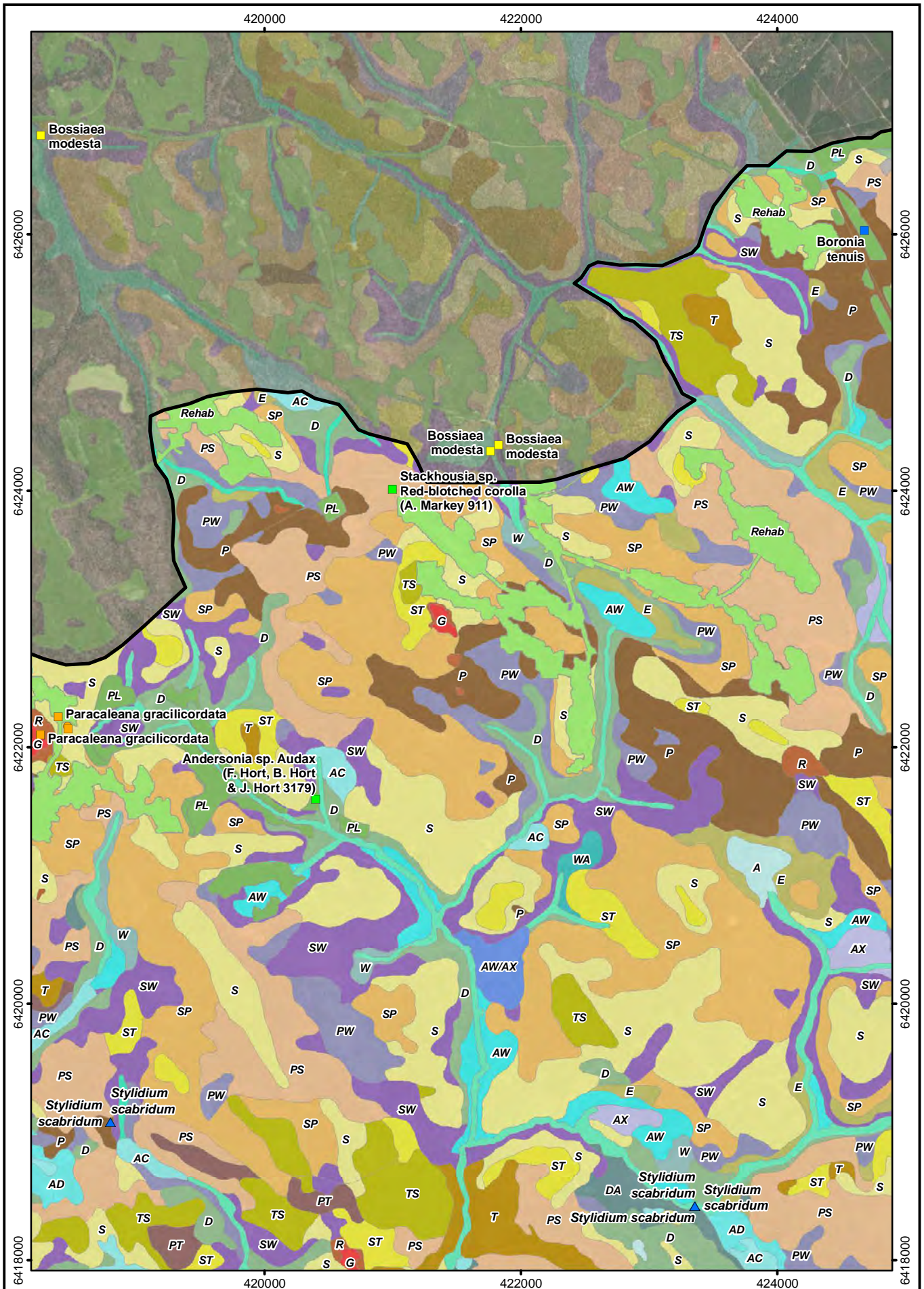
Table 11: Summary of Site-vegetation Types (SVT) on the Myara North Survey Area (continued)

	SVT Code	SVT Description	Myara North Survey Area (ha)	Myara North Corridor Area (ha)	Proportion of Survey Area (%)
Tahom	M	Open woodland of <i>Eucalyptus wandoo</i> over <i>Trymalium ledifolium</i> , <i>Macrozamia riedlei</i> and <i>Hakea lissocarpha</i> on clay loams with some gravel on mid to upper slopes and ridges.	3.43	-	0.02
	P	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Styphelia nitens</i> , <i>Grevillea wilsonii</i> , <i>Leucopogon capitellatus</i> on sandy gravels.	1225.88	1.70	6.62
	PG	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Grevillea wilsonii</i> , <i>Leucopogon capitellatus</i> <i>Grevillea bipinnatifida</i> , <i>Allocasuarina humilis</i> , <i>Babingtonia camphorosmae</i> and <i>Hypocalymma angustifolium</i> on sandy gravels.	-	-	-
	PJ	Open woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Allocasuarina fraseriana</i> over <i>Stirlingia latifolia</i> and <i>Lepidosperma</i> spp. on sandier patches on sandy-loam soils on slopes.	-	-	-
	PT	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravels.	102.54	15.86	0.64
	TP	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Allocasuarina fraseriana</i> - <i>Banksia grandis</i> on sandy-loams to sandy-gravels with scattered understorey, including <i>Clematis pubescens</i> , <i>Adenanthos barbiger</i> , <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravels.	-	-	-
	PS	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Leucopogon capitellatus</i> on gravels and sandy gravels.	3450.48	127.10	19.30
	SP	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Grevillea wilsonii</i> and <i>Leucopogon capitellatus</i> on sandy-gravels to gravelly soils.	1304.55	58.30	7.35
	S	Open Forest of <i>Eucalyptus marginata</i> - <i>Banksia grandis</i> - <i>Allocasuarina fraseriana</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Leucopogon capitellatus</i> and <i>Styphelia tenuiflora</i> on gravels and sandy-gravels.	3165.01	106.50	17.64
	ST	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon capitellatus</i> , <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Lasiopetalum floribundum</i> and <i>Styphelia tenuiflora</i> on sandy-gravelly soils.	969.45	0.09	5.23
	TS	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly to gravelly soils.	779.46	87.36	4.68
	T	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly soils.	304.74	125.36	2.32

Table 11: Summary of Site-vegetation Types (SVT) on the Myara North Survey Area (continued)

	SVT Code	SVT Description	Myara North Survey Area (ha)	Myara North Corridor Area (ha)	Proportion of Survey Area (%)
Slopes with higher seasonal soil moisture	SW	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Hypocalymma angustifolium</i> and <i>Styphelia tenuiflora</i> on seasonally moister sandy-gravelly soils.	774.52	12.64	4.25
	PW	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Grevillea wilsonii</i> , <i>Adenanthos barbiger</i> , <i>Babingtonia camphorosmae</i> and <i>Hypocalymma angustifolium</i> on sandy gravels.	582.62	22.89	3.27
Outcrop Areas	R	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> on fringes of granite outcrops or shallow soils over mixed understorey species reflecting shallow soils over granite.	365.69	12.30	2.04
	RG	Localised patchy mosaic of R and G site-vegetation types.	0.65	-	0.004
	G/G1	Mosaic of Open Woodland of <i>Eucalyptus marginata</i> – <i>Corymbia calophylla</i> on the fringes of outcrops ranging to open heath communities of Proteaceae-Myrtaceae species and lithic complexes on the outcrop areas.	268.17	20.27	1.56
	G2	Woodland of <i>Allocasuarina huegeliana</i> and associated herbs and low shrubs on shallow granite outcrops.	-	-	-
Other Areas	CL	Cleared		224.26	1.21
	CL Other	Cleared Other	198.83	-	1.07
	PL	Plantation	162.22	-	0.87
	Rehab	Rehabilitation Areas	387.47	53.07	2.38
	DAM	Dam	-	5.02	-

Code	Description of Site-Vegetation Types
A	Tall shrubland of mixed <i>Melaleuca</i> spp., <i>Taxandria linearifolia</i> , <i>Hypocalymma angustifolium</i> , <i>Pericalymma ellipticum</i> with emergent <i>Melaleuca preissiana</i> on clay-loams in seasonally wet valley floors.
AC	Open Woodland of <i>Eucalyptus rudis</i> – <i>Melaleuca preissiana</i> - <i>Eucalyptus patens</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on broad swamps and water-courses.
AD	Low open woodland of <i>Eucalyptus rudis</i> and <i>Eucalyptus marginata</i> over <i>Banksia littoralis</i> , <i>Hakea prostrata</i> and <i>Pericalymma ellipticum</i> over low shrubs and herbs on leached sands over sandy-gravel on lower slopes.
AW	Low open woodland of <i>Eucalyptus patens</i> and <i>Melaleuca preissiana</i> over <i>Banksia littoralis</i> , <i>Hakea prostrata</i> and <i>Taxandria linearifolia</i> over low shrubs and herbs on leached sands over sandy-gravel on lower slopes.
AW/AX	Localized patchy mosaic of AW and AX.
AW/CW	Localized patchy mosaic of AW and CW.
WA	Open Forest of <i>Eucalyptus megacarpa</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Banksia littoralis</i> and occasional <i>Melaleuca preissiana</i> over <i>Acacia extensa</i> and <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.
AX	Open woodland of <i>Eucalyptus rudis</i> over <i>Acacia saligna</i> , <i>Melaleuca incana</i> subsp. <i>incana</i> and <i>Hypocalymma angustifolium</i> on clay- loams on valley floors.
D	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> - <i>Allocauarina fraseriana</i> - <i>Hakea prostrata</i> with <i>Xylomelum occidentale</i> on lower slopes with mixed low understorey species, including <i>Babingtonia camphorosmae</i> , <i>Daviesia decurrens</i> , <i>Daviesia preissii</i> and <i>Acacia extensa</i> on clay loams to gravelly clay-loams.
DA	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> - <i>Allocauarina fraseriana</i> - <i>Hakea prostrata</i> and <i>Xylomelum occidentale</i> on lower slopes with patches of <i>Melaleuca preissiana</i> , <i>Banksia littoralis</i> over mixed low understorey species, including <i>Babingtonia camphorosmae</i> and <i>Astartea scoparia</i> on clay loams to gravelly clay-loams.
DG	Open forest of <i>Corymbia calophylla</i> and <i>Eucalyptus marginata</i> over <i>Hakea lissocarpha</i> , <i>Macrozamia riedlei</i> , <i>Pericalymma ellipticum</i> , <i>Grevillea bipinnatifida</i> , <i>Acacia alata</i> , <i>Babingtonia camphorosmae</i> , <i>Hypocalymma angustifolium</i> and <i>Phyllanthus calycinus</i> on clay-loams on lower slopes with localized patches of outcropping.
E	Open woodland of <i>Eucalyptus marginata</i> and <i>Corymbia calophylla</i> over <i>Mesomelaena tetragona</i> , <i>Kingia australis</i> , <i>Leptospermum erubescens</i> and <i>Babingtonia camphorosmae</i> on sandy to sandy-loam soils on slopes.
J	Open Woodland to open forest of <i>Eucalyptus marginata</i> , <i>Corymbia calophylla</i> and <i>Eucalyptus patens</i> over <i>Mesomelaena tetragona</i> , <i>Leptocarpus scariosus</i> , <i>Babingtonia camphorosmae</i> and <i>Stirlingia latifolia</i> on broad sandy-loam flats valley slopes.
C	Woodland to Open Forest of <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.
CW	Woodland to Open Forest of <i>Eucalyptus patens</i> – <i>Eucalyptus megacarpa</i> - <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.
W	Open Forest of <i>Eucalyptus megacarpa</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.
Q	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> with mixed understorey species, including <i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i> , <i>Acacia extensa</i> and <i>Phyllanthus calycinus</i> on loam soils on lower slopes.
M	Open woodland of <i>Eucalyptus wandoo</i> over <i>Trymalium ledifolium</i> , <i>Macrozamia riedlei</i> and <i>Hakea lissocarpha</i> on clay loams with some gravel on mid to upper slopes and ridges.
P	Open Forest of <i>Allocauarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Styphelia nitens</i> , <i>Grevillea wilsonii</i> , <i>Leucopogon capitellatus</i> on sandy gravels.
PG	Open Forest of <i>Allocauarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Grevillea wilsonii</i> , <i>Leucopogon capitellatus</i> <i>Grevillea bipinnatifida</i> , <i>Allocauarina humilis</i> , <i>Babingtonia camphorosmae</i> and <i>Hypocalymma angustifolium</i> on sandy gravels.
PJ	Open woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Allocauarina fraseriana</i> over <i>Stirlingia latifolia</i> and <i>Lepidosperma</i> spp. on sandier patches on sandy-loam soils on slopes.



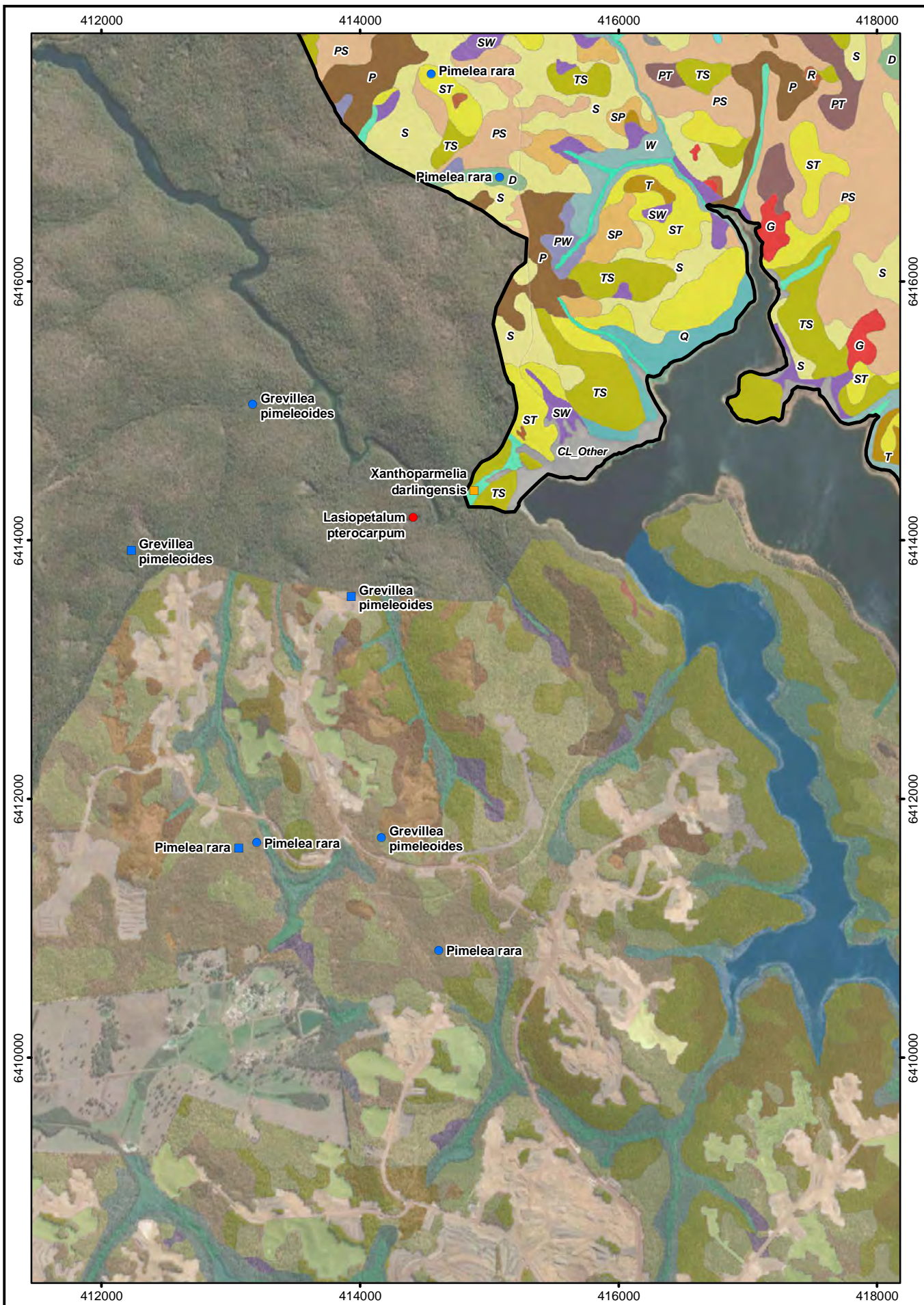
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**Site-vegetation Types
 in North Myara Area**
 Sheet 5 of 10

Figure:
16.4



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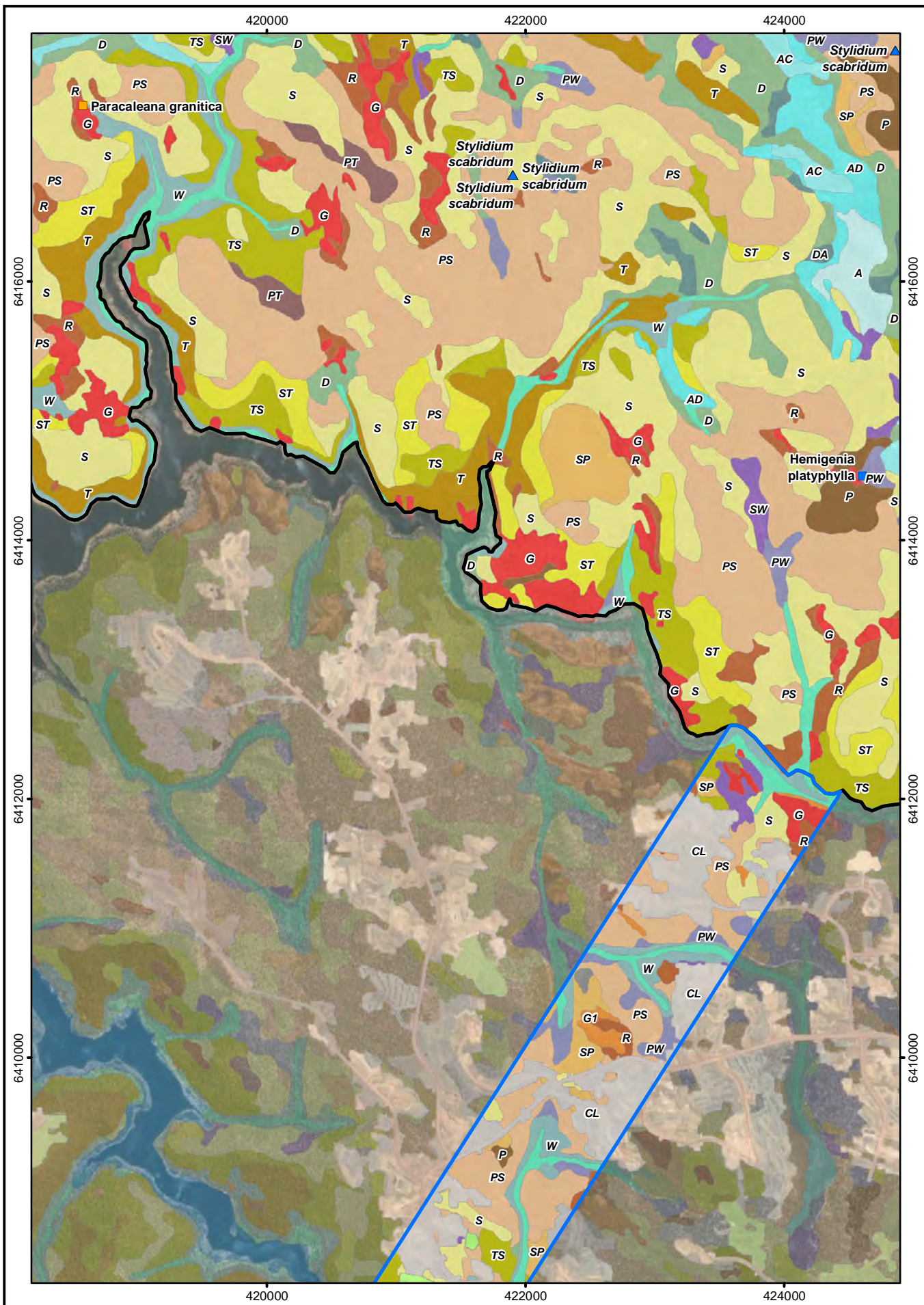
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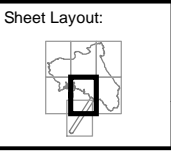
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**Site-vegetation Types
in North Myara Area**
Sheet 7 of 10

Figure:
16.6



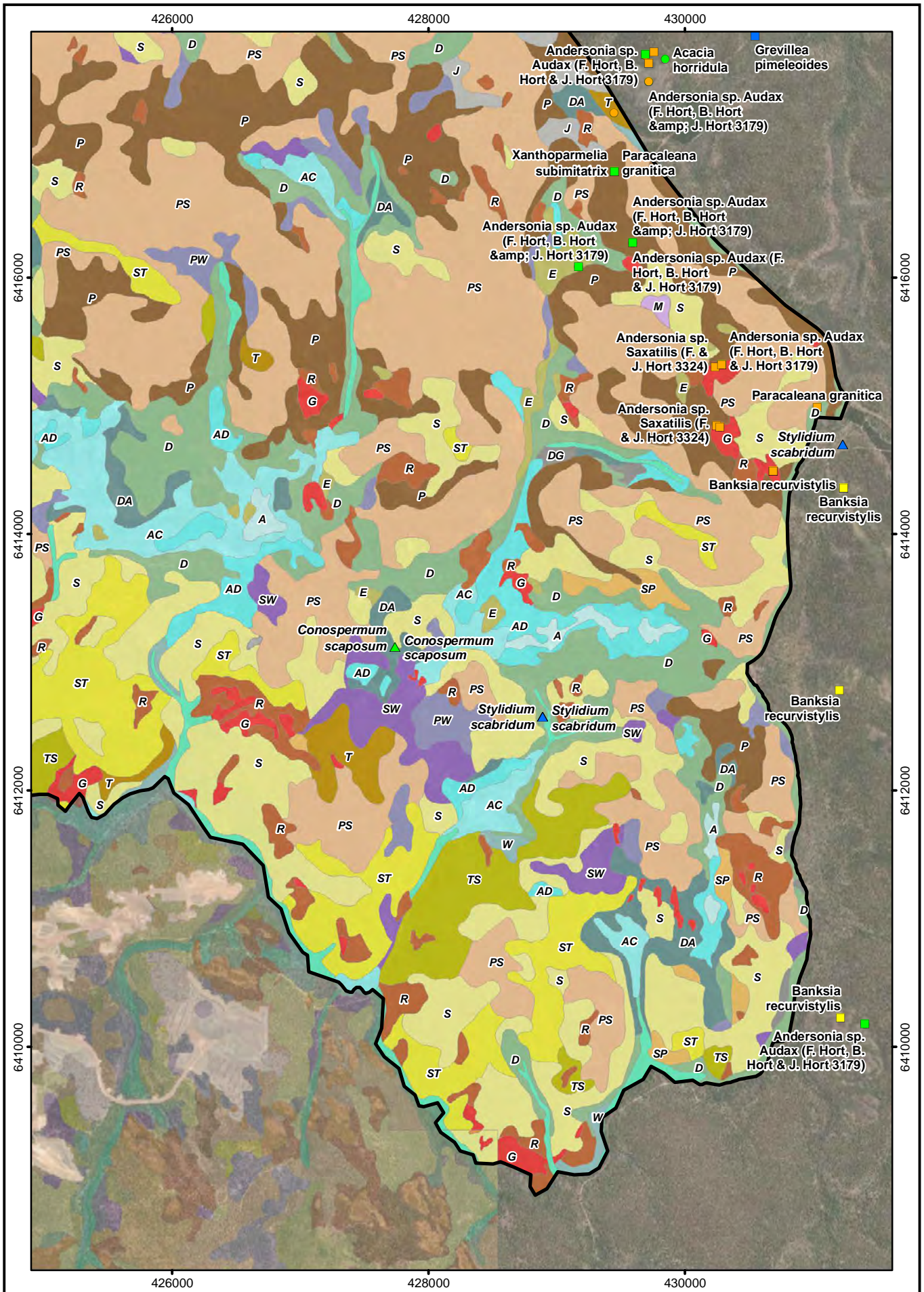
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**Site-vegetation Types
 in North Myara Area**
 Sheet 8 of 10

Figure:
16.7



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MGA94 (Zone 50)

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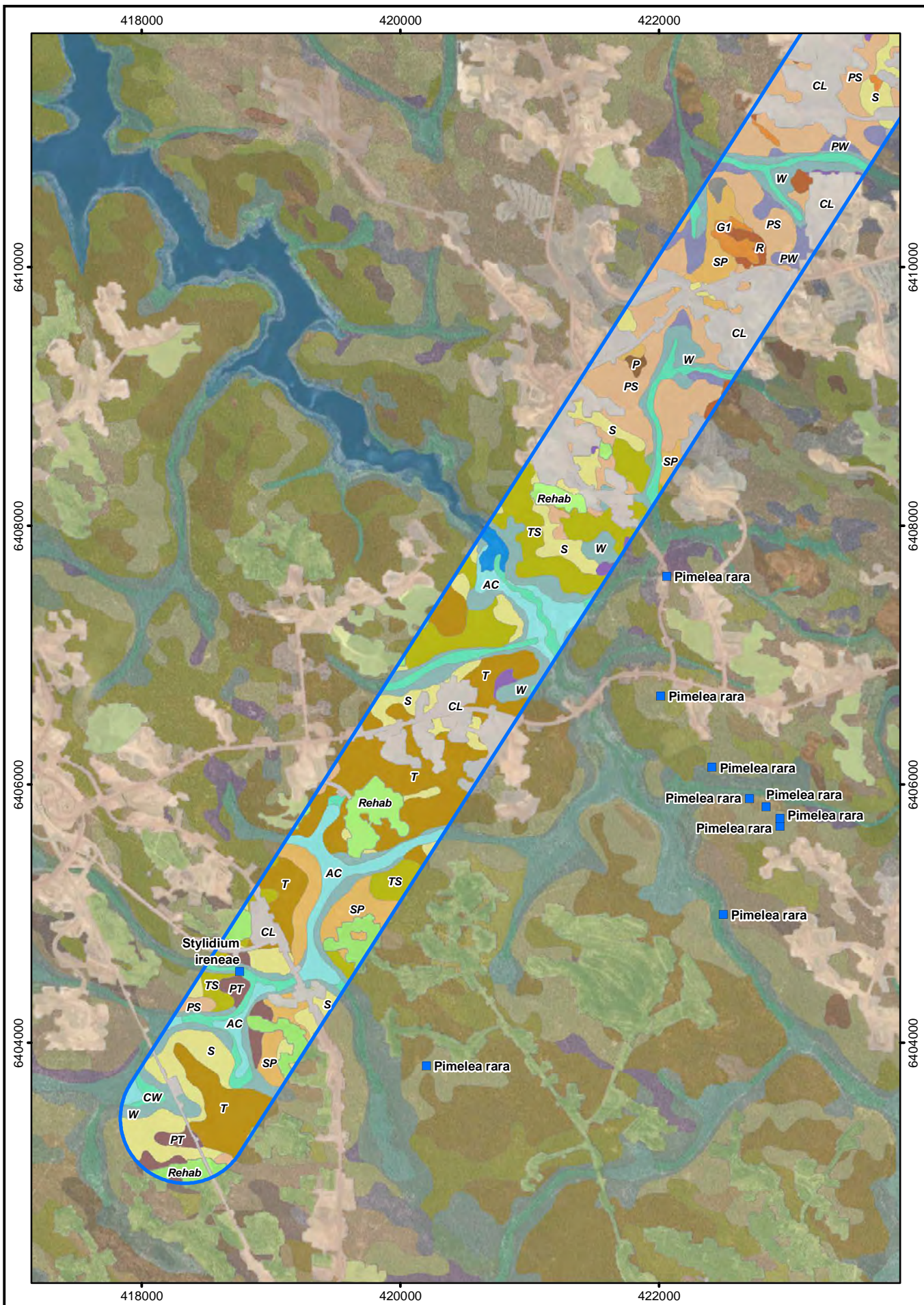
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**Site-vegetation Types
in North Myara Area**
Sheet 9 of 10

Figure:
16.8



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**Site-vegetation Types
 in North Myara Area**
 Sheet 10 of 10

Figure:
16.9

5.7. Vegetation Condition

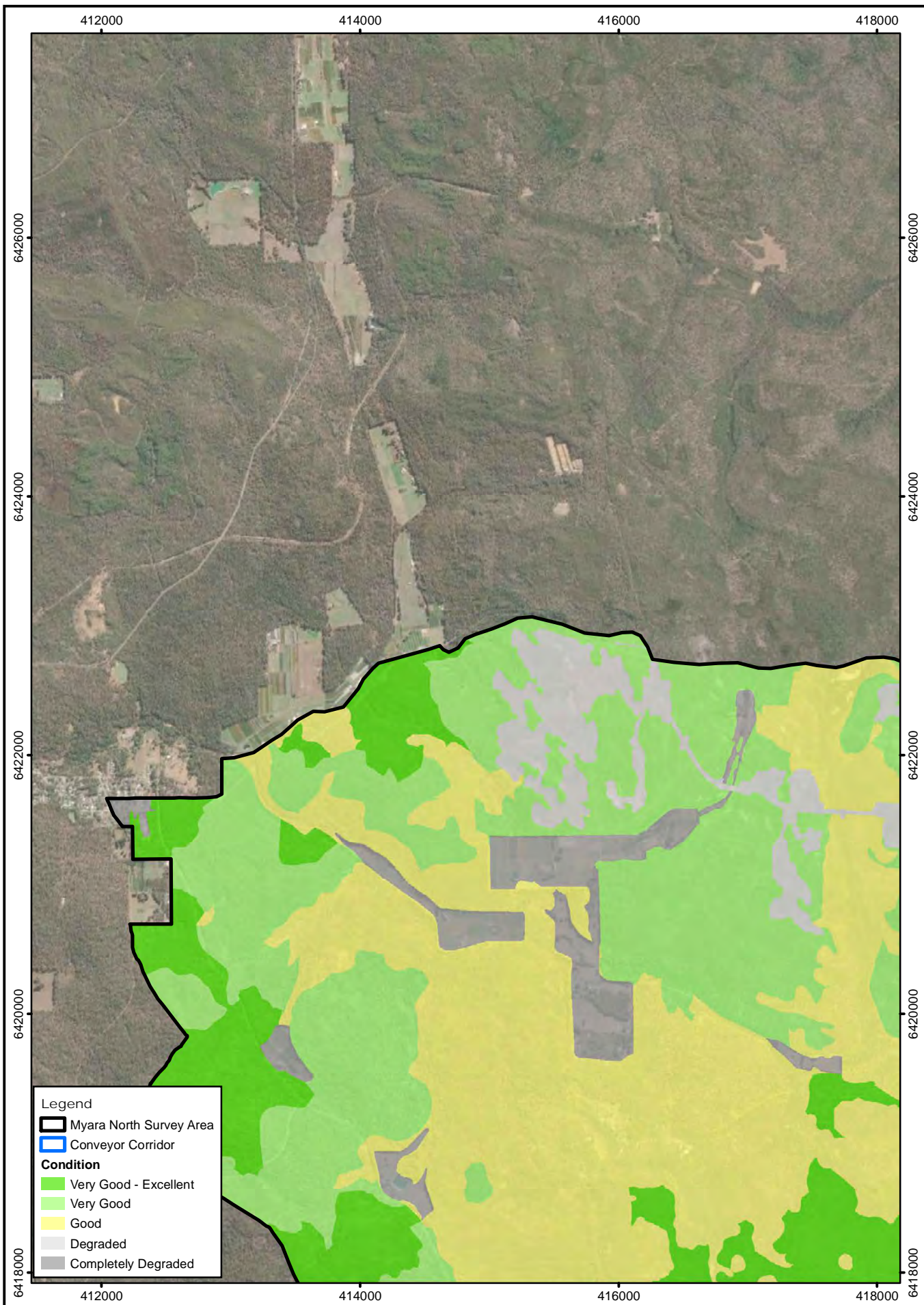
The extent of the respective condition ratings are summarised in Table 12. The extent of the respective condition ratings are summarized in Table 10. The vegetation and condition conditions rating was based on EPA Guidance Statement (2016b) which was adapted from Keighery (1994) and Trudgen (1988), Appendix A5.

The majority of the vegetation was ranked as very good and very good-excellent (50.41%) despite historical harvesting activities and local pressures from recreational activities with 15.23% being designated as Very-Good to Excellent. The biodiversity values have persisted in many areas instances. Some areas have been influence by the Jarrah Dieback disease and although the composition of the understorey has been modified as a result of the *Phytophthora cinnanomi* infections these areas still provide a range of native species towards the forest values. The degraded and completely degraded (5.57%) areas are associated with cleared, older rehabilitation areas and plantation areas, Figures 17.1 to 17.7.

Less stumps and logging activities were recorded within the swamp areas and on lower sandier soils in the broader valley types; although dieback disease from *Phytophthora cinnanomi* has influenced many of the valley systems in the MN survey area (Glevan Consulting 2020). A few areas supporting patches of larger trees were designated as potential fauna habitats. The recording sites designated on Figure 18 supported more than one tree with a diameter at breast height greater than 50cm, Figure 18.

Table 12: Summary of Condition Ratings in Myara North survey area

Condition Rating	Survey Area	Area (ha)	% Survey Area
Very Good - Excellent	Myara North	2823.31	15.23
Very Good	Myara North	6022.67	32.48
Good	Myara North	7854.43	42.36
Degraded	Myara North	387.47	2.09
Completely Degraded	Myara North	361.06	1.95
Very Good	Conveyor Corridor	500.17	2.70
Good	Conveyor Corridor	309.23	1.67
Degraded	Conveyor Corridor	53.07	0.29
Completely Degraded	Conveyor Corridor	229.29	1.24
Total		18540.71	100.00



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N
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MGA94 (Zone 50)

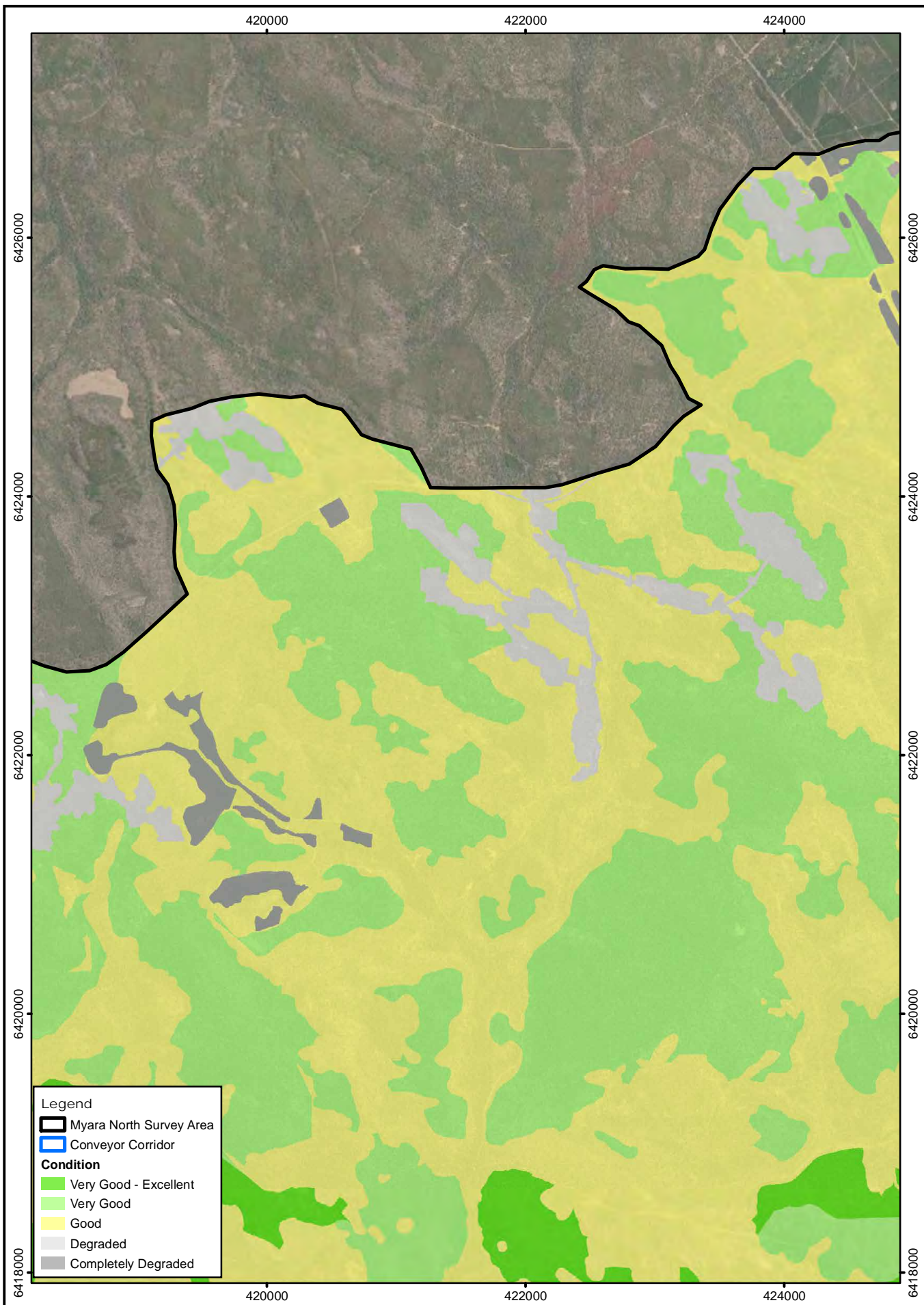
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**Vegetation Condition
in Myara North Area**
Sheet 1 of 7

Figure:
17.1



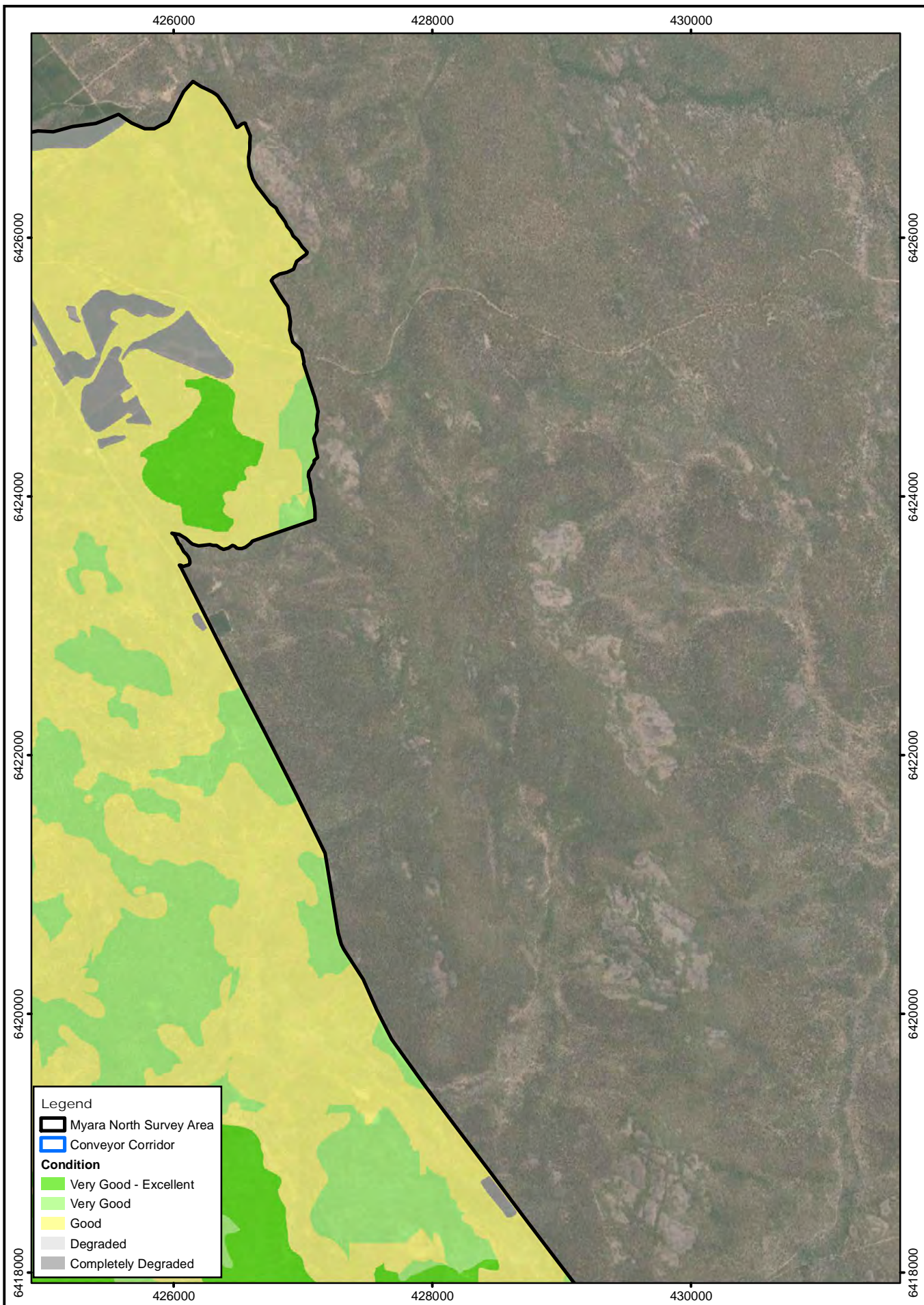
Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

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<p>CAD Ref: a1992_MyNth_F08_01</p> <p>Date: May 2021</p>	<p>Rev: C A4</p>			



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N
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Scale: 1:40,000
MGA94 (Zone 50)

CAD Ref: a1992_MyNth_F08_01
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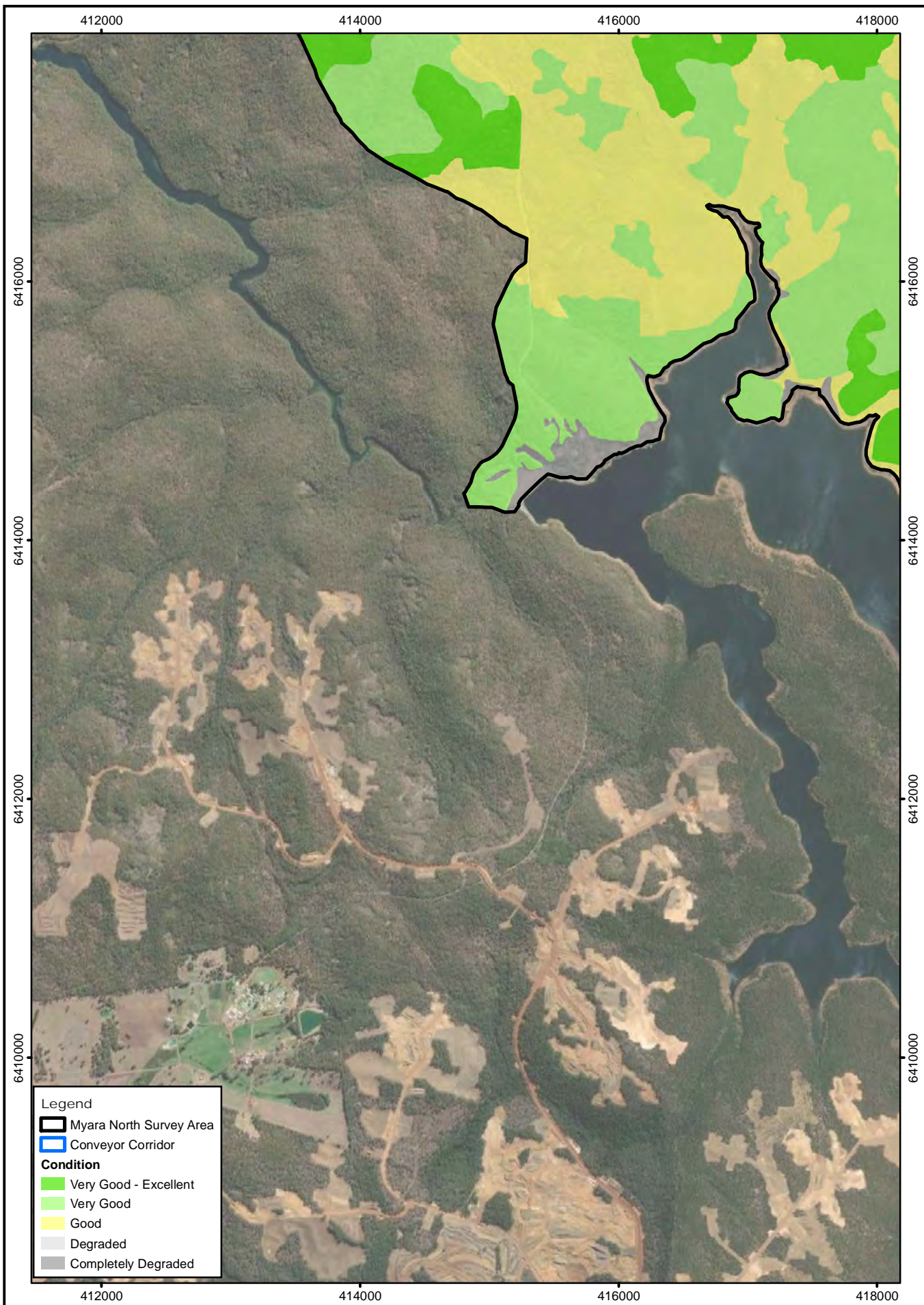
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**Vegetation Condition
in Myara North Area**
Sheet 3 of 7

Figure:
17.3



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N

0 300 600 m

Scale: 1:40,000
MGA94 (Zone 50)

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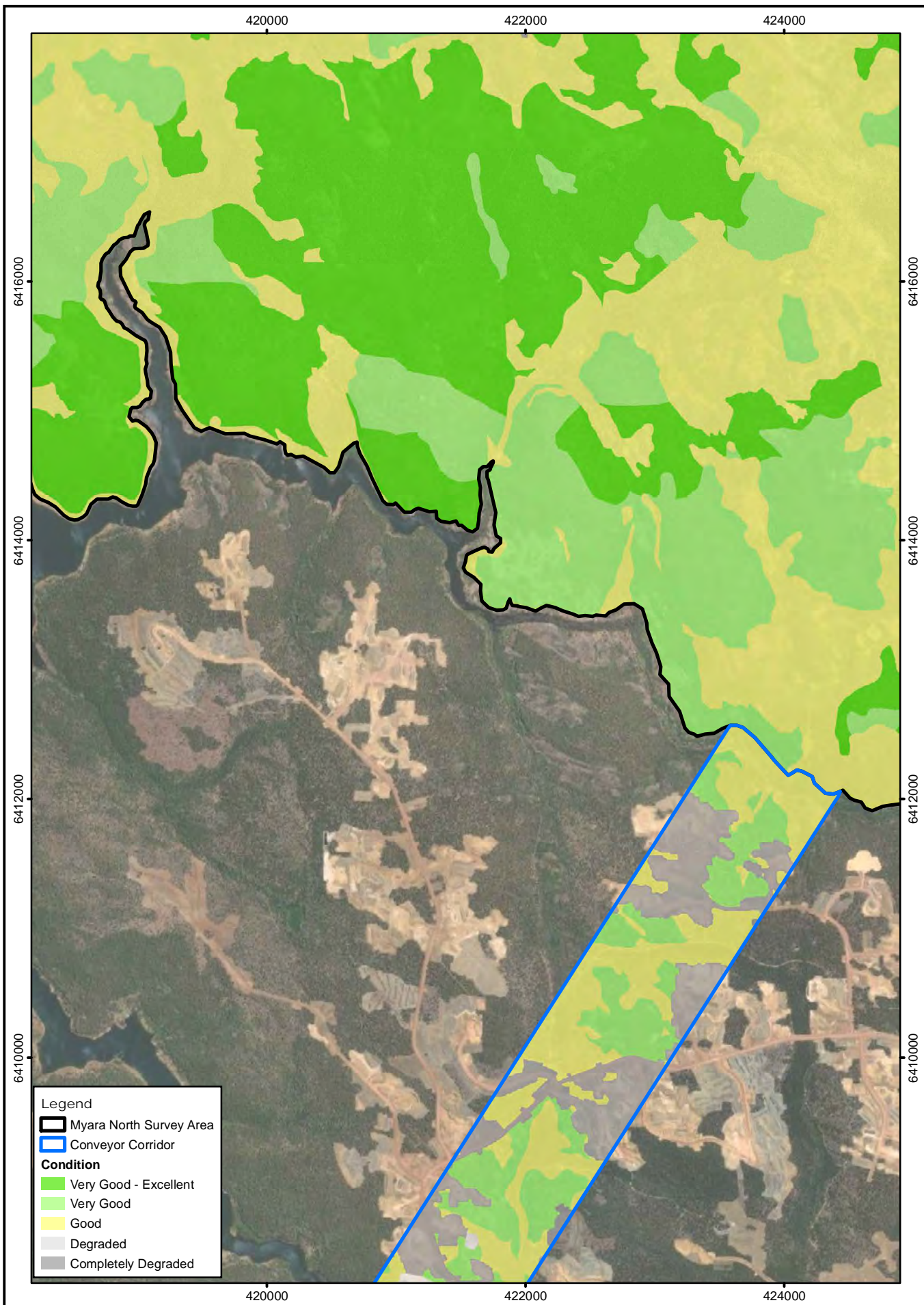
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**Vegetation Condition
in Myara North Area**

Sheet 4 of 7

Figure:
17.4



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N
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Scale: 1:40,000
MGA94 (Zone 50)

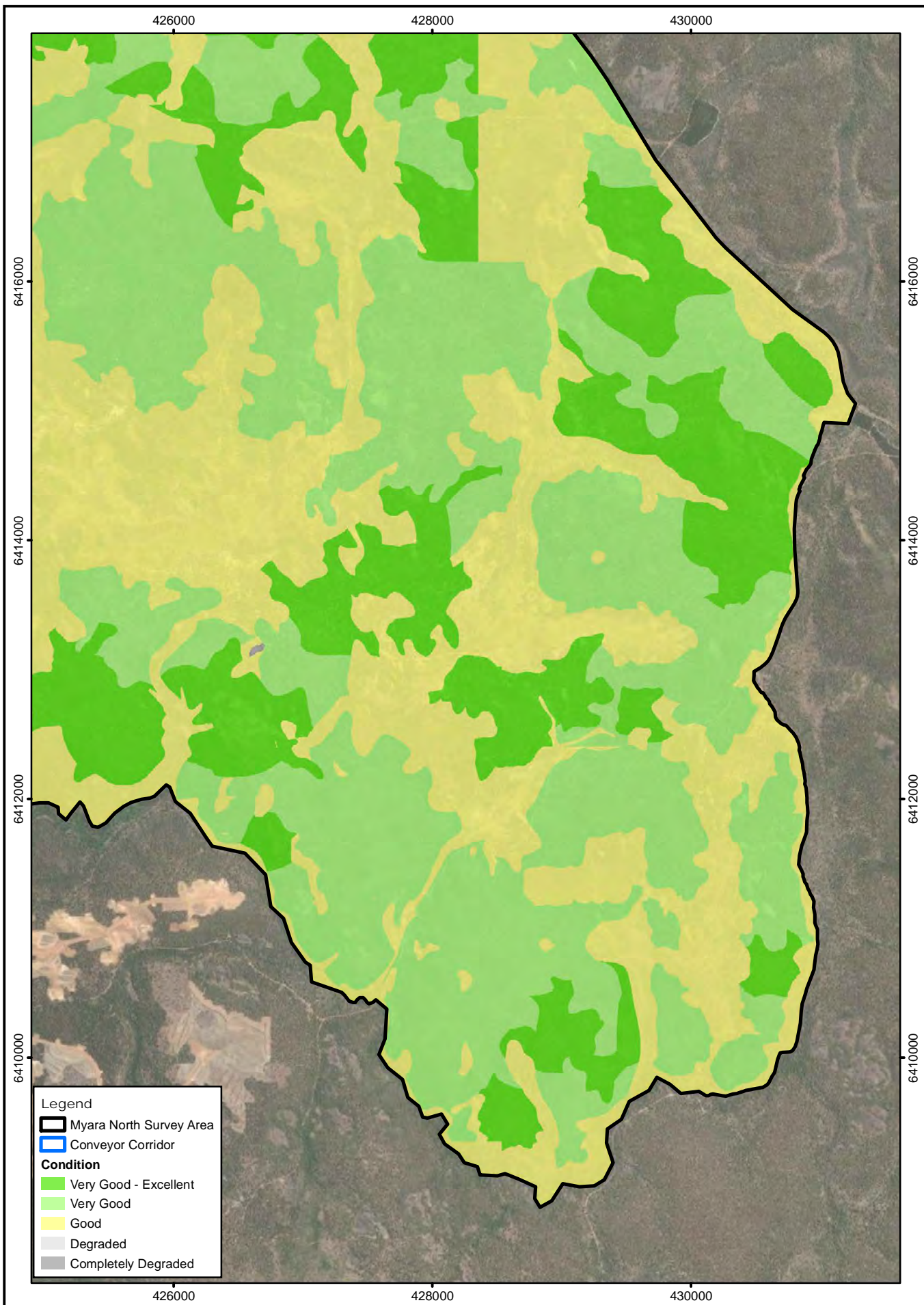
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**Vegetation Condition
in Myara North Area**
Sheet 5 of 7

Figure:
17.5



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N

0 300 600 m

Scale: 1:40,000
MGA94 (Zone 50)

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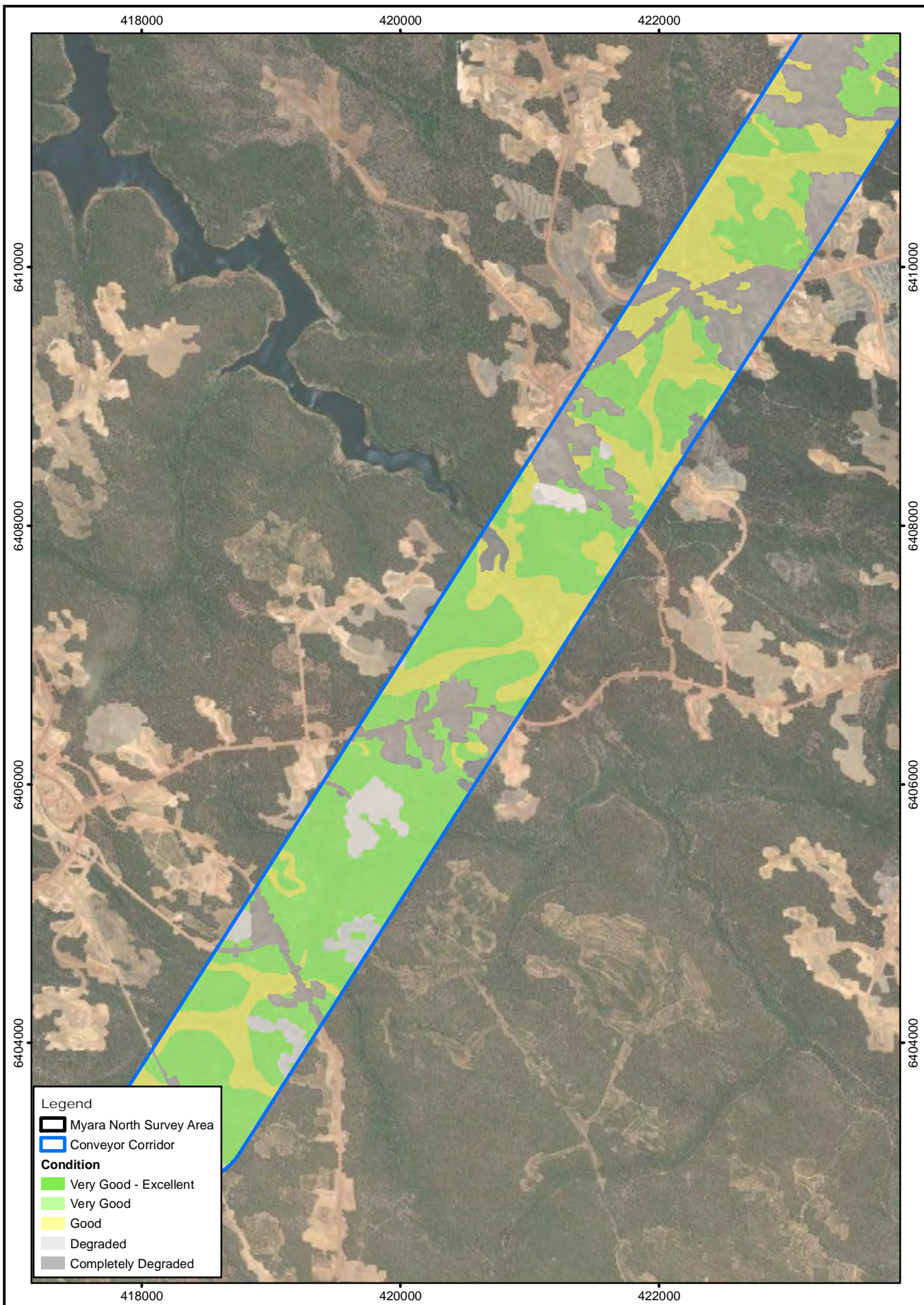
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**Vegetation Condition
in Myara North Area**

Sheet 6 of 7

Figure:
17.6



Legend

- Myara North Survey Area
- Conveyor Corridor

Condition

- Very Good - Excellent
- Very Good
- Good
- Degraded
- Completely Degraded

N
0 300 600 m
Scale: 1:40,000
MGA94 (Zone 50)

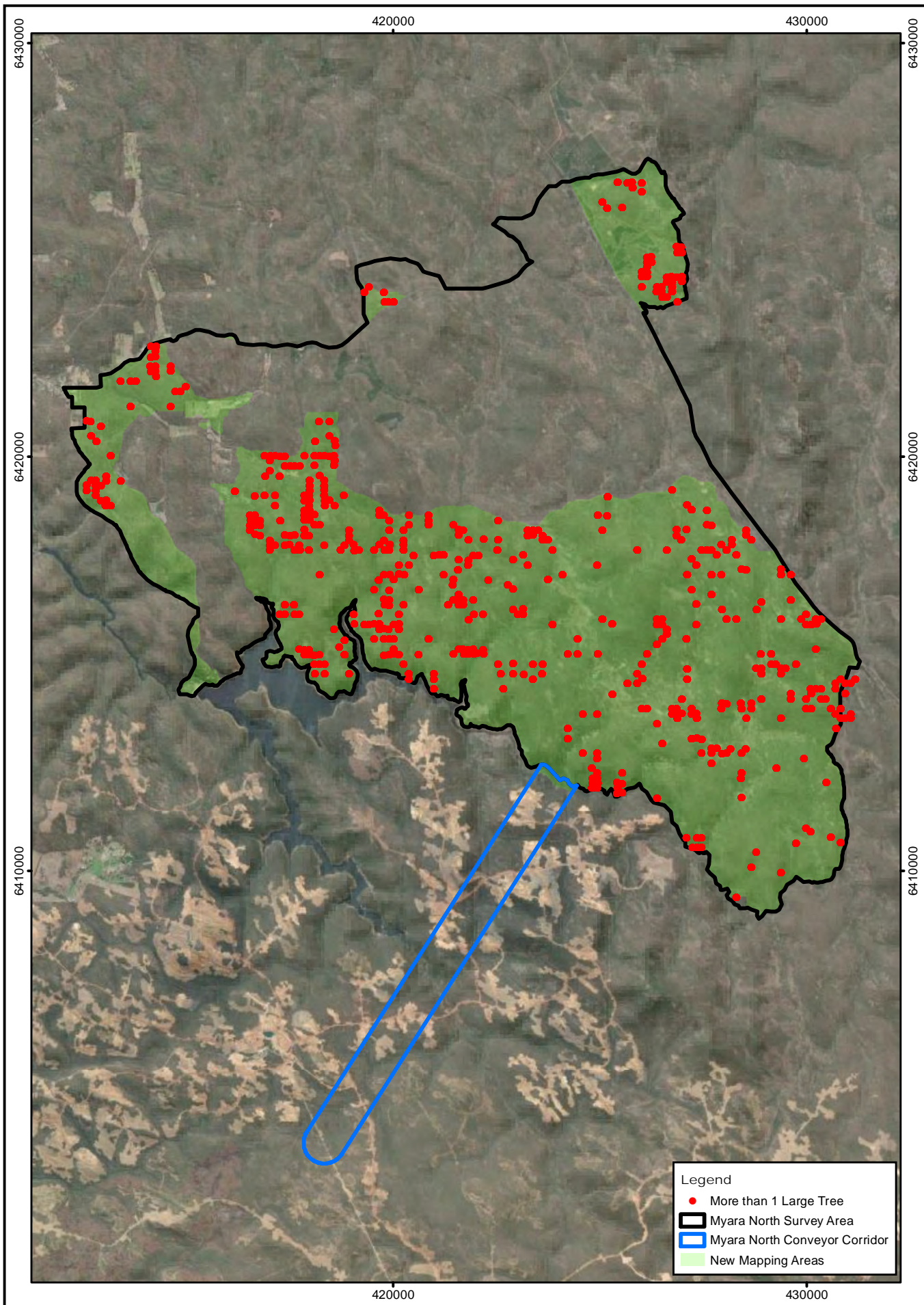
CAD Ref: a1992_MyNth_F08_01
Date: May 2021

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**Vegetation Condition
in Myara North Area**
Sheet 7 of 7

Figure:
17.7



Legend

- More than 1 Large Tree
- ▭ Myara North Survey Area
- ▭ Myara North Conveyor Corridor
- ▭ New Mapping Areas

N
0 1 2 km
Scale: 1:125,000
MGA94 (Zone 50)

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Myara North Survey Area
Patches of Large Trees > 50cm

Figure:
18

CAD Ref: a1992_MyNth_F13_01
Date: May 2021 Rev: A | A4

5.8. Threatened and Priority Ecological Communities

No Threatened Ecological Communities (TECs) occur in the MN survey area. The desktop assessment highlighted several potential TECs; however these are restricted to the Swan Coastal Plain and as such do not extend into the Jarrah forest area on the Darling Ranges.

One of the priority ecological communities (PECs), as listed at State level by DBCA (2020a) occurs within the MN survey area, namely:

- Granite communities of the northern Jarrah forest (P3)
 - Jarrahdale area – Monadnocks, Blue Rock; insufficient information to distinguish discrete community type/s (DBCA 2020a).

There is one botanical PEC, listed at State level (Granite Communities of the northern Jarrah Forest), which is likely to occur in the MN survey area. This Priority Ecological Community has some affinities with the values in G and R (and variants). There is a lack of clarity on the values that determine the presence of the Priority Ecological Community other than the species that occur on granite outcrops on the Darling Scarp as defined by Markey (1997) (pers comm. J Pryde, DBCA). On a local scale the outcrop areas are locally very variable from lithic complexes to heaths to open woodlands. The species as recorded by Markey (1997), on the granite outcrops to the west on the Darling Scarp, were compared with those recorded in the site-vegetation types G and R by Mattiske Consulting team in 2020. Of these the main keystone species include *Calothamnus quadrifidus*, *Borya sphaerocephala*, *Grevillea bipinnatifida*, *Allocasuarina humilis* and *Babingtonia camphorosmae*. Of these species the initial four species are associated with shallow soils and granite outcrops. The *Babingtonia camphorosmae* is associated with seasonally moister soils which may occur in a range of site conditions including near run-off areas near granite outcrops. There is a lack of local data within the MN survey area to confirm the extent of the PEC other than to refer to the studies by Markey (1997) on the Darling Scarp. One limitation associated with such a comparison was relate to the degree of disturbance of the granite sampling sites on the Darling Scarp as reflected in the range of introduced species recorded in the Markey (1997) sampling areas.

The MN survey area occurs within the Regional Forest Agreement (RFA) area of the southwest forests DAWE (2020b) and as such was considered during the RFA process.

5.9. Potential Groundwater Dependent Ecosystems

The potential groundwater dependent ecosystems were determined on the basis of the site-vegetation types as mapped in Figures 16.3 to 16.9 above, see Figure 19. In view of the extensive flora and vegetation studies in the northern Jarrah Forest these vegetation complexes support species and site-vegetation types that prefer and occur on seasonally moister and wetter soils on the swamps and lower slopes of the valley systems. This approach was considered to represent a precautionary approach in the absence of detailed groundwater level data at the time of selecting the potential groundwater dependent ecosystems at this juncture.

Key site-vegetation types with the potential for groundwater dependent ecosystems included the following site-vegetation types, namely:

Swamps and Broad Valleys – A, AC, D, AD, DA and E

Valley Floors and Lower Slopes - CW and W

Slopes with localized higher seasonal soil moisture – SW and PW

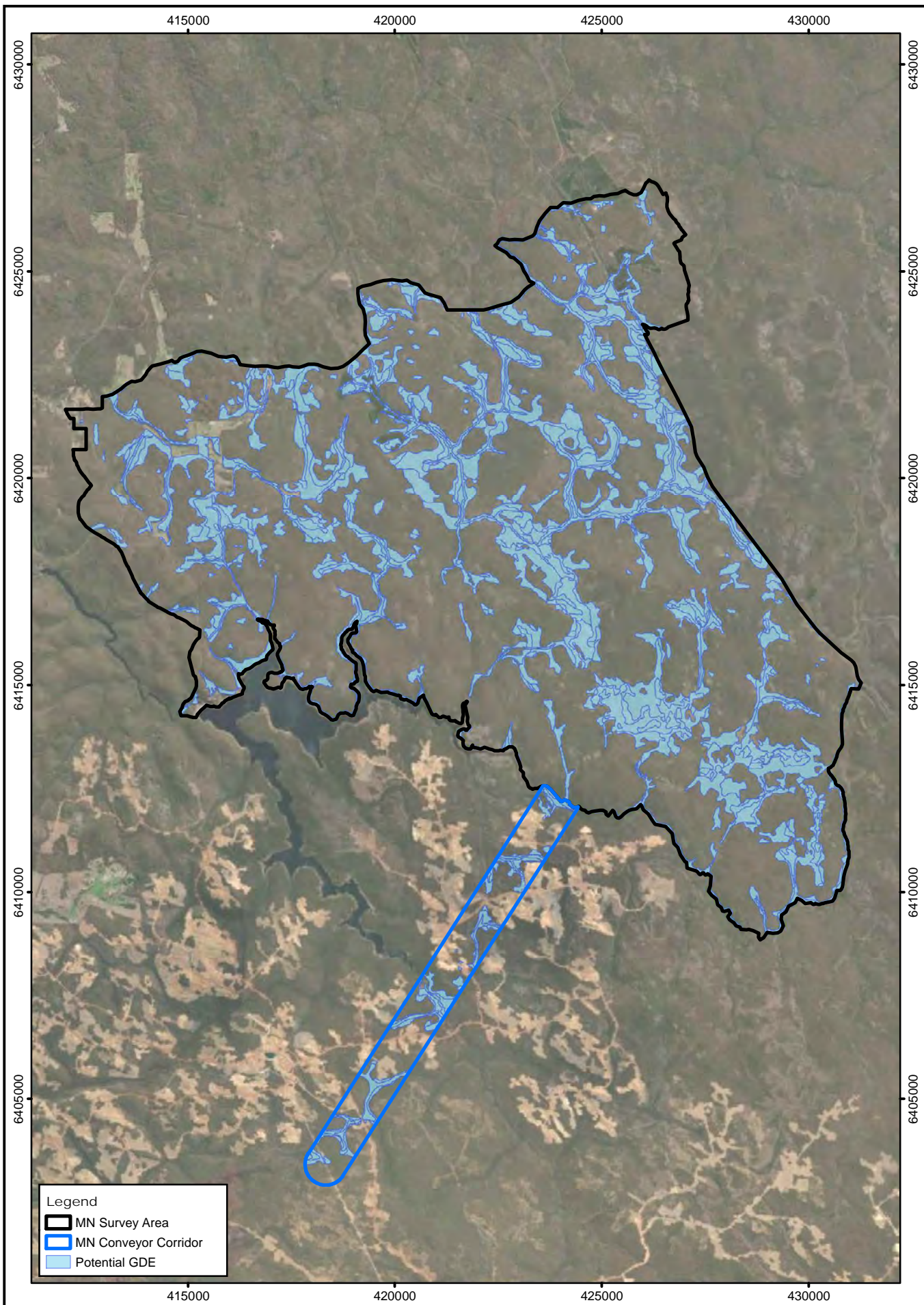
Key indicator plant species that are generally accepted as indicators of moister soils and, hence, potential groundwater dependent ecosystems include – *Banksia littoralis*, *Hakea varia*, *Acacia divergens*, *Pultenaea skinneri*, *Boronia molloyae*, *Thomasia paniculata*, *Astartea scoparia*, *Eucalyptus rudis*, *Hypocalymma cordifolium*, *Melaleuca preissiana*, *Melaleuca raphiophylla*, *Melaleuca viminea*, *Baumea* and *Leptocarpus* species and *Taxandria linearifolia*. *Babingtonia camphorosmae* and *Hypocalymma angustifolium* indicate seasonal moister soils and as such are significant in determining local conditions.

5.10. Old Growth Forests

Based on data as supplied by DBCA (2020) there are a number of patches of Old Growth Forest occurring in the area surrounding the MN survey area, with some occurring within 10 km of the survey area boundary to the north, south, east and west (see Section 4.7). A small section of Old Growth Forest intersects the survey area in the central part of the south-western boundary of the MN survey area. Due to the proximity of the MN survey area to the township of Jarrahdale and the Perth population the areas within MN have been subject to harvesting for many decades.

In reviewing the data as collected within the MN survey area it is apparent that some of the older flora and vegetation survey areas (E.M. Mattiske and Associates 1988, 1992, 1993 and Mattiske Consulting Pty Ltd 2009, 2011, 2012 and 2019) have been logged since the initial surveys were undertaken. The earlier flora and vegetation survey areas (conveyor corridor and previous survey areas within the MN survey area) were not re-assessed in 2020.

The survey did not identify any additional areas within the survey area that could potentially be un-mapped Old Growth Forest, based on Department of Parks and Wildlife criteria (DPAW 2017).



Legend

- MN Survey Area
- MN Conveyor Corridor
- Potential GDE

N
 0 1 2 km
 Scale: 1:125,000
 MGA94 (Zone 50)

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**Potential GDE's based on Site-vegetation Types
 Myara North survey area**

6. DISCUSSION AND CONCLUSIONS

6.1. Flora

A total of 681 vascular taxa was recorded in the MN survey area and the adjacent areas. The survey efforts were undertaken over multiple years and seasons and therefore the coverage of the flora was considered to exceed the EPA (2016a and 2016b) guidance statements expectations.

No Threatened flora species, pursuant to section 179 of the *EPBC Act* and as listed by DAWE (2020a) or pursuant to Part 2, Division 1 and Subdivision 2 of the *BC Act* and as listed by DBCA (2018a) were recorded during the detailed flora and vegetation survey of the MN survey area. The lack of threatened flora is key outcome of the survey effort and as such reinforces the desktop assessment which found a moderate to low likelihood of threatened flora occurrence on the MN survey area. The eight Threatened species that had a moderate potential to occur in the MN survey area were largely (seven of the eight) occurred in broader valleys and near granite outcrops.

Fourteen Priority flora species as listed by DBCA (2018c) have been recorded in the MN survey area. During 2020, four Priority species were recorded within the specific MN survey area, namely *Acacia drummondii* subsp. *affinis* (P3), *Acacia horridula* (P3), *Conospermum scaposum* (P3) and *Stylidium scabridum* (P4). Additional Priority flora species (*Acacia oncinophylla* subsp. *oncinophylla*, *Boronia tenuis*, *Bossiaea modesta*, *Banksia recurvistylis*, *Grevillea crowleyae*, *Grevillea manglesii* subsp. *dissectifolia* and *Grevillea pimeleoides*) were recorded on the fringes of the MN survey area and in nearby flora and vegetation studies in previous studies.

The Priority flora species occur on the varying landform and soil groupings, namely - 41.9% in swamps, 58.1% on or near granite outcrops and 61.3% with lateritic gravelly soils. Whilst the Priority species occur on the various landform and soil groupings, the vast majority have occurred on the eastern areas of the MN survey area in the broader valley systems and nearer the monadnock areas to the north and east.

Fifty-eight introduced species were recorded in the MN assessment. One of the introduced species is a declared pest organism pursuant to section 22 of the BAM Act, namely: *Gomphocarpus fruticosus* (DPIRD 2020). None of the introduced species are listed as a Weed of National Significance (WONS) (DAWE 2020d). Of the 58 introduced species, 8 have been ranked as High Ecological Impact by DPAW (2014) and 24 have been ranked as Rapid Invasiveness by DPAW (2014). *Gomphocarpus fruticosus* is associated with cleared and degraded areas, *Leptospermum laevigatum* is associated with areas near previous disturbance and tracks, *Watsonia meriana* is associated with valley floors and creek lines. The remainder are associated with degraded and completely degraded areas and fringes of road and tracks.

A key characteristic of the survey area is the shift in landforms and soils from west to east across the MN survey area and the latter is reflected in the change in the dominance of flora species that tolerate the broader valley systems, swamps and the outcrop areas. The summary of results from the plots and the recording sites as summarized by the site-vegetation types reflects this shift from species in the lateritic slopes and ridges and the broader valleys and outcrops.

6.2 Vegetation Values

The survey efforts were undertaken over multiple years and seasons and the coverage of the vegetation was considered to exceed the EPA (2016a and 2016b) guidance statements expectations. The vegetation values were recorded in vegetation plots (20m x 20m with 20 x 2m x 2m quadrats within each plot), in regular recording sites and from aerial photographic imagery interpretations. The vegetation plots were established in the spring months of 2020 and these were combined with nearby plots from Jarrahdale (JDL), Myara and Huntly areas (HU) and other forest plots (FMPs). The coverage of the survey area with

regular recording sites was undertaken over a six month period and then the data was merged with previous data sets from the earlier studies near Jarrahdale and the Myara and Huntly areas.

A total of 32 site-vegetation types were defined and mapped on the MN survey area. The delineation of the site-vegetation types was based on the interpretation of the ranking data for the flora species and the underlying landforms and soils. The interpretation of the data from recording sites was based on the previous methods adopted by Mattiske which relied on the interpretation of the keystone species as defined by Havel (1975a and 1975b) and the site parameters as recorded at each recording site. This approach provided consistency with previous approaches adopted in the site-vegetation mapping in the northern Jarrah forest by Havel (1975a and 1975b) and Mattiske on the previous areas near Jarrahdale, Dwellingup and in the eastern Jarrah forests.

A range of analyses were undertaken on the vegetation plot data and after a series of analyses there was a reliance placed on keystone species as defined by Havel (1975a and 1975b) and as modified by Mattiske for the northern Jarrah forest. The continuum nature of the vegetation was reflected in the findings for the site-vegetation types which occur on the lateritic slopes and ridges and the more distinct communities on the swamps and broader valley systems. The statistical approach adopted in other projects was less reliable in the MN survey area as many species occur on all sites or only a few sites and it also does not take into account the site parameters which are critical in the delineation of the site-vegetation types. Whilst the differentiation was evident on the more diverse and different structural and floristic communities in the sites associated with valleys and granite outcrops this was not the case for the site-vegetation types that have subtle shifts in keystone species on the gradients from sandy soils, to sandy-loams to sandy-gravels to gravels and lateritic outcropping areas.

The site-vegetation types were subdivided into six main groupings associated with site conditions which reflected landforms, soils and soil moisture levels. The site-vegetation types on the extreme sites such as granite outcrops and broad valley systems and swamps differ markedly from the forest and woodland areas on the slopes and ridges.

The G, G1, G2, RG and R site-vegetation types are associated with the outcrop areas and are in larger areas associated with the Cooke vegetation complex as defined by Heddle *et al.* (1980) and Mattiske and Havel (1998). These site-vegetation types support a range of conservation significant species. As the mining operations are mainly associated with the lateritic slopes and uplands these areas are unlikely to be impacted to the same degree.

The series of site-vegetation types associated with the broader valley systems which dominate the Yarragil 2 and Swamp vegetation complexes as defined by Mattiske and Havel (1998) provide a spatial diversity that supports a range of species. As the mining operations are mainly associated with the lateritic slopes and uplands these areas are unlikely to be directly impacted to the same degree. There is potential for some of these site-vegetation types to be groundwater dependent ecosystems with the potential for indirect impacts from some operational activities. As some of the key species in these areas are depended on seasonal increases in soil moisture availability in the valley systems there is some potential for indirect impacts.

The dominant site-vegetation types on the lateritic slopes and ridges include types P, PS, SP, S, ST, T and TS. The other areas of significance are the localised site-vegetation types that support specific and localised flora species (e.g. site-vegetation types E and J that occur in more restricted areas within the broader valleys). The remaining codes (CL, CL Other, Rehab, Dam and PL) are associated with modified environments.

No Threatened Ecological Communities (TECs) occur in the MN survey area. The only botanical Priority Ecological Community has some affinities with the values in G and R (and variants). There is a lack of clarity on the values that determine the presence of the Priority Ecological Community other than the association with the outcrops. On a local scale the outcrop areas are locally very variable from lithic

complexes to heaths to open woodlands. The species as recorded by Markey (1997), on the granite outcrops to the west on the Darling Scarp, were compared with those recorded in the site-vegetation types G and R by Mattiske Consulting team in 2020. Of these the main keystone species include *Calothamnus quadrifidus*, *Borya sphaerocephala*, *Grevillea bipinnatifida*, *Allocasuarina humilis* and *Babingtonia camphorosmae*. Of these species the initial four species are associated with shallow soils and granite outcrops. The *Babingtonia camphorosmae* is associated with seasonally moister soils which may occur in a range of site conditions including near run-off areas near granite outcrops. No specific sampling by DBCA was undertaken (pers comm. J Pryde, DBCA) in the areas designated as the PEC granite community within the MN survey area.

The majority of the vegetation was ranked as very good and very good-excellent (50.41%) despite historical harvesting activities and local pressures from recreational activities with 15.23% being designated as Very-Good to Excellent. The biodiversity values have persisted in many areas instances. Some areas have been influence by the Jarrah Dieback disease and although the composition of the understorey has been modified as a result of the *Phytophthora cinnanomi* infections these areas still provide a range of native species towards the forest values. The degraded and completely degraded (5.57%) areas are associated with cleared, older rehabilitation areas and plantation areas. Less stumps and logging activities were recorded within the swamp areas and on lower sandier soils in the broader valley types; although dieback disease from *Phytophthora cinnanomi* has influenced many of the valley systems in the MN survey area (Glevan Consulting 2020). A few areas supporting patches of larger trees were designated as potential fauna habitats.

The potential groundwater dependent ecosystems were determined on the basis of the vegetation complexes and when the more detailed site-vegetation type mapping was available the initial interpretations were updated. The dominant and key indicator species which occur in moister and wetter soils on the swamps and lower slopes of the valley systems underpinned the selection of the potential groundwater dependent ecosystems. Soil moisture levels reflect local site conditions, such as runoff from granite outcrops in wetter seasons and areas where the soil type can hold water for longer periods. Therefore not all areas supporting the latter species are GDEs, but may reflect other specific site conditions not related to the groundwater levels.

State Government mapping indicates that there is a number of patches of old growth forests occurring in the area surrounding the MN survey area, with some occurring within 10 km of the survey area boundary to the north, south, east and west. A small section of old growth forest intersects the survey area in the central part of the south-western boundary of the MN survey area. The survey did not identify any additional areas within the survey area that could potentially be un-mapped old growth forest, based on Department of Parks and Wildlife criteria (DPAW 2017).

7. ACKNOWLEDGEMENTS

The authors would like to thank Alcoa of Australia Ltd and the environment team at GHD for their assistance with this project.

8. PERSONNEL

The following Mattiske Consulting Pty Ltd personnel were involved in this recent project. Thanks also go to previous staff members of the Mattiske Consulting team, the Alcoa Australia environmental team, Mike Hislop from the State Herbarium for assistance with plant identifications and the environmental team at GHD for their support during this project.

NAME	POSITION	PROJECT INVOLVEMENT	FLORA COLLECTION PERMITS
Dr EM Mattiske	Managing Director & Principal Ecologist	Project Management, Planning, Field Studies, Data Collation, Data interpretation, Reporting	FB62000019 TFL 26-1920
L Rowles	Experienced Botanist	Project Leader, Field Studies, Data Collation, Assisting with Reporting	FB62000020-2
S. Ruoss	Experienced Botanist	Field Studies, Data Collation	FB62000031-2 TFL 17-1819
R. Dharmarajan	Experienced Botanist	Field Studies, Data Collation	FB62000028-2
E. Chetwin	Experienced Botanist	Field Studies, Data Collation	FB62000026-2
L. Cockram	Experience Botanist	Field Studies, Assisting with Plant Identifications, Data Collation	FB62000266
A. Barrett	Experience Botanist	Field Studies	FB62000030-2
B. Ellery	Senior Botanist	Assisting with Plant Identifications	FB62000024-2
N. Watson	Botanist	Field Studies, Assisting with Plant Identifications, Data Collation	FB62000146-2
A. Pereira	Botanist	Field Studies, Data Collation	FB62000145-2
Z. Sims	Botanist	Field Studies, Data Collation	FB62000025-2
J. Wescombe	Botanist	Data collation, reporting	FB62000032-2
R. Jones	Botanist	Data collation and Assisting with Reporting	N/A
M. Behn	Biologist	Field Studies, Data Collation and Assisting with Reporting	FB62000264
T. Gregory	Technical Support	Data Collation and Assisting with Reporting	N/A

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APPENDIX A1: THREATENED AND PRIORITY FLORA DEFINITIONS

Under section 179 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), threatened flora are categorised as extinct, extinct in the wild, critically endangered, endangered, vulnerable and conservation dependent (Table A1.1).

Table A1.1 Federal definition of threatened flora species

Note: Adapted from section 179 of the EPBC Act.

CODE	CATEGORY	DEFINITION
Ex	Extinct	Species which at a particular time if, at that time, there is no reasonable doubt that the last member of the species has died.
ExW	Extinct in the Wild	Species which is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or it has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
CE	Critically Endangered	Species which at a particular time if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
E	Endangered	Species which is not critically endangered and it is facing a very high risk of extinction in the wild in the immediate or near future, as determined in accordance with the prescribed criteria.
V	Vulnerable	Species which is not critically endangered or endangered and is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
CD	Conservation Dependent	Species which at a particular time if, at that time, the species is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.

The *Biodiversity Conservation Act 2016* (BC Act) provides for (amongst other things) the protection of flora that is facing an extremely high risk of extinction in the wild in the immediate, near or medium-term future in Western Australia under Part 10 (Division 2).

Threatened flora are listed in the *Wildlife Conservation (Rare Flora) Notice 2018* (under Part 2, Division 1, Subdivision 2 of the BC Act; Department of Biodiversity, Conservation and Attractions [DBCA] (2018a) and are categorised under Schedules 1-3. A flora species is defined as threatened if it is facing an extremely high risk of extinction in the wild in the immediate, near or medium-term future, pursuant to sections 20, 21 and 22 of the BC Act (DBCA 2019). Threatened species are categorised as critically endangered, endangered, and vulnerable (Table A1.2).

Table A1.2 State definition of threatened flora species

Note: Adapted from DBCA (2019).

CODE	CATEGORY	DEFINITION
CR	Critically endangered	Species considered to be facing an extremely high risk of becoming extinct in the wild (listed under Schedule 1 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i>).
EN	Endangered	Species considered to be facing a very high risk of becoming extinct in the wild (listed under Schedule 2 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i>).
VU	Vulnerable	Species considered to be facing a high risk of becoming extinct in the wild (listed under Schedule 3 of the <i>Wildlife Conservation (Rare Flora) Notice 2018</i>).

Priority flora species are defined as “possibly threatened species that do not meet the survey criteria, or are otherwise data deficient” or species that are “adequately known, are rare but not threatened, meet criteria for near threatened or have recently been removed from the threatened species list” **for other than taxonomic reasons** (DBCA 2019). Priority species are not afforded the same level of protection under state or federal legislation as the listed Threatened species, however are considered significant under the Environmental Protection Authority’s *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a). The Department of Biodiversity, Conservation and Attractions categorises priority flora into four categories: Priority 1; Priority 2, Priority 3 and Priority 4 (Table A1.3).

Table A1.3: State definition of priority flora species

Note: Adapted from DBCA (2019).

CODE	CATEGORY	DEFINITION
P1	Priority 1: Poorly-known species	Known from one or a few locations (< 5) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation; or are otherwise under threat of habitat destruction or degradation. In urgent need of further survey.
P2	Priority 2: Poorly-known species	Known from one or a few locations (< 5). Some occurrences are on lands managed primarily for nature conservation. In urgent need of further survey.
P3	Priority 3: Poorly-known species	Known from several locations and the species does not appear to be under imminent threat; or from few but widespread locations with either a large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. In need of further survey.
P4	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 do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable. c) Other - Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

APPENDIX A2: THREATENED AND PRIORITY ECOLOGICAL COMMUNITY DEFINITIONS

Under section 181 of the EPBC Act, threatened ecological communities are categorised as critically endangered, endangered and vulnerable (Table A2.1).

Table A2.1 Federal definition of threatened ecological communities

Note: Adapted from section 181 and section 182 of the EPBC Act.

CATEGORY	DEFINITION
Critically Endangered	If, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future.
Endangered	If, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future.
Vulnerable	If, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium-term future.

Threatened ecological communities (TECs) are listed in the *List of Threatened Ecological Communities endorsed by the Western Australian Minister for Environment (28 June 2018)* (under Part 2, Division 2, Subdivision 1 of the BC Act; DBCA 2018b). An ecological community is defined as threatened if it is facing an extremely high risk of collapse in the immediate, near or medium-term future, pursuant to sections 28, 29 and 30 of the BC Act. Threatened ecological communities are categorised as critically endangered, endangered, and vulnerable (Table A2.2).

Currently there is no Western Australian legislation covering the conservation of state listed threatened ecological communities (TECs), however, a non-statutory process is in place, whereby the DBCA (and former equivalent departments) have been identifying and informally listing TECs since 1994. Some of these TECs are also endorsed by the Federal Minister as threatened, and some of these are listed under the EPBC Act and therefore afforded legislative protection at the Commonwealth level.

Table A2.2 State definition of threatened ecological communities

Note: Adapted from Department of Environment and Conservation (2013).

CODE	CATEGORY	DEFINITION
CR	Critically Endangered	An ecological community will be listed as CR 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 or more of the following criteria: <ol style="list-style-type: none"> 1. 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; 2. The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area; or 3. The ecological community is highly modified with potential of being rehabilitated in the immediate future.
EN	Endangered	An ecological community will be listed as EN when it has been adequately surveyed and is not CR, but is facing a very high risk of total destruction in the near future. The ecological community must meet any one or more of the following criteria: <ol style="list-style-type: none"> 1. 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; 2. The current distribution is limited i.e. highly restricted, having very few small or isolated occurrences, or covering a small area; or 3. The ecological community is highly modified with potential of being rehabilitated in the short term future.
VU	Vulnerable	An ecological community will be listed as VU 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 or more of the following criteria: <ol style="list-style-type: none"> 1. The ecological community exists largely as modified occurrences that are likely to be able to be substantially restored or rehabilitated; 2. The ecological community may already be modified and would be vulnerable to threatening process, and restricted in range or distribution; or 3. The ecological community may be widespread but has potential to move to a higher threat category due to existing or impending threatening processes.

Priority ecological communities (PECs) are defined as possible threatened ecological communities that do not meet the stringent survey criteria for the assessment of threatened ecological communities, and are listed by the DBCA (2020a) in the *Priority Ecological Communities for Western Australia – Version 29 (05 May 2020)*. Similarly to priority flora, PECs are not afforded legislative protection, however are considered significant under the Environmental Protection Authority's (2016a) *Environmental Factor Guideline: Flora and Vegetation*. The Department of Biodiversity, Conservation and Attractions categorises priority ecological communities into five categories: Priority 1; Priority 2, Priority 3, Priority 4 and Priority 5 (Table A2.3).

Table A2.3 State definition of priority ecological communities

Note: Adapted from Department of Environment and Conservation (2013).

CODE	CATEGORY	DEFINITION
P1	Priority 1 (Poorly known ecological communities)	Ecological communities that are known from very few, restricted occurrences (generally ≤ 5 occurrences or a total area of ≤ 100 ha). Most of these occurrences are not actively managed for conservation (e.g. located within agricultural or pastoral lands, urban areas, or active mineral leases) and for which immediate threats exist.
P2	Priority 2 (Poorly known ecological communities)	Communities that are known from few small occurrences (generally ≤ 10 occurrences or a total area of ≤ 200 ha). At least some occurrences are not believed to be under immediate threat of destruction or degradation.
P3	Priority 3 (Poorly known ecological communities)	<ol style="list-style-type: none"> 1. 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; 2. 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 3. 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.
P4	Priority 4 (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)	<ol style="list-style-type: none"> 1. Rare – Communities known from few occurrences that are considered to have been adequately surveyed, sufficient knowledge is available, and are considered not to be currently threatened. 2. Near Threatened – Communities considered to have been adequately surveyed and do not qualify for Conservation Dependent, but are close to qualifying for Vulnerable. 3. Communities that have been removed from the list of threatened communities during the past five years.
P5	Priority 5 (Conservation Dependent ecological communities)	Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

APPENDIX A3: CATEGORIES AND CONTROL MEASURES OF DECLARED PEST (PLANT) ORGANISMS IN WESTERN AUSTRALIA

Section 22 of **Western Australia's *Biosecurity and Agriculture Management Act 2007*** (BAM Act) makes provision for a plant taxon to be listed as a declared pest organism in respect to parts of, or the entire State. According to the BAM Act, a declared pest is defined as a prohibited organism (section 12), or an organism for which a declaration under section 22 (2) of the Act is in force.

Under the *Biosecurity and Agriculture Management Regulations 2013* (WA), declared pest plants are placed in one of three control categories, C1 (exclusion), C2 (eradication) or C3 (management), which determines the measures of control which apply to the declared pest (Table A4.1). The current listing of declared pest organisms and their control category is through the Western Australian Organism List (Department of Primary Industries and Regional Development 2020).

Table A3.1 Categories and control measures of declared pest (plant) organisms

Note: Adapted from *Biosecurity and Agriculture Management Regulations 2013*.

CONTROL CATEGORY	CONTROL MEASURES
<p>C1 (Exclusion)</p> <p>‘(a) Category 1 (C1) — Exclusion: if in the opinion of the Minister introduction of the declared pest into an area or part of an area for which it is declared should be prevented.’</p> <p>Pests will be assigned to this category if they are not established in Western Australia and control measures are to be taken, including border checks, in order to prevent them entering and establishing in the State.</p>	<p>In relation to a category 1 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.</p>
<p>C2 (Eradication)</p> <p>‘(b) Category 2 (C2) — Eradication: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is feasible.’</p> <p>Pests will be assigned to this category if they are present in Western Australia in low enough numbers or in sufficiently limited areas that their eradication is still a possibility.</p>	<p>In relation to a category 2 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to destroy, prevent or eradicate the declared pest.</p>
<p>C3 (Management)</p> <p>‘(c) Category 3 (C3) — Management: if in the opinion of the Minister eradication of the declared pest from an area or part of an area for which it is declared is not feasible but that it is necessary to:</p> <p>(i) alleviate the harmful impact of the declared pest in the area; or</p> <p>(ii) reduce the number or distribution of the declared pest in the area; or</p> <p>(iii) prevent or contain the spread of the declared pest in the area.’</p> <p>Pests will be assigned to this category if they are established in Western Australia but it is feasible, or desirable, to manage them in order to limit their damage. Control measures can prevent a C3 pest from increasing in population size or density or moving from an area in which it is established into an area which currently is free of that pest.</p>	<p>In relation to a category 3 declared pest, the owner or occupier of land in an area for which an organism is a declared pest or a person who is conducting an activity on the land must take such of the control measures specified in subregulation (1) as are reasonable and necessary to:</p> <p>(a) alleviate the harmful impact of the declared pest in the area for which it is declared; or</p> <p>(b) reduce the number or distribution of the declared pest in the area for which it is declared; or</p> <p>(c) prevent or contain the spread of the declared pest in the area for which it is declared.</p>

APPENDIX A4: OTHER DEFINITIONS

Environmentally sensitive areas

Environmentally sensitive areas are declared by the State Minister under section 51B of the *Environmental Protection Act 1986* (EP Act) and are listed in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*, gazetted 8 April 2005. Specific environmentally sensitive areas relevant to this report include: a defined wetland and the area within 50 metres of the wetland; the area covered by vegetation within 50 metres of rare flora; the area covered by a threatened ecological community; a Bush Forever site – further areas and information are described in the *Environmental Protection (Environmentally Sensitive Areas) Notice 2005*.

Conservation significant flora

Under the *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a), flora may be considered significant for a range of reasons, including, but not limited to the following:

- being identified as threatened or priority species;
- locally endemic or 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;
- 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; or
- relictual status, being representative of taxonomic groups that no longer occur widely in the broader landscape.

Conservation significant vegetation

Under the *Environmental Factor Guideline: Flora and Vegetation* (Environmental Protection Authority 2016a), vegetation may be considered significant for a range of reasons, including, but not limited to the following:

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

APPENDIX A5: VEGETATION CONDITION SCALE (adapted from Keighery 1994 and Trudgen 1988 and as summarized in EPA Guidance Statement 2016b and modified to adjust to "forest" areas)

Vegetation Condition	EPA Definition (2016b) - South West and Interzone Botanical Provinces	Comments reflecting condition ratings for "Forest" areas (including diversity of structural and floristic composition areas)	Clearing Agriculture Residential	Post-Mining & Rehabilitation	Tracks & Roads	Logging Harvest Records, Stumps	Dieback	Introduced Flora Species
Pristine	Pristine or nearly so, no obvious signs of disturbances caused by human activities since European settlement.	Very restricted areas as most areas been subject to some disturbance.	None	None	None	No Logging (old growth forest)	None obvious, limited / no vulnerable species	Limited / no presence
Excellent	Vegetation Structure intact, disturbance affecting individual species and weeds are non-aggressive. Damage to trees caused by fire, the presence of non-aggressive weeds and occasional tracks.	Very little evidence of logging in past. Occasional tracks, past burning, no obvious dieback, presence of short-lived non-aggressive weed.	None	None	Occasional tracks	Predominantly mature forest (last harvest > 70 years ago)	None obvious, limited / no vulnerable species	Non aggressive weeds
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 modification to structural components through past logging activities, repeated fires. Grazing only by native animals in forests. No obvious dieback, presence of short-lived non-aggressive weed.	None	None	Occasional tracks	Immature forest (last harvest > 20, < 70 years ago)	Limited dieback infestation on localised areas, limited vulnerable species	Non-aggressive weeds
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 frequent fires, the presence of very aggressive weeds, partial clearing, dieback and grazing.	Some modification to structural and floristic components through past mining and logging activities. Occurrence of repeated fires that have impacted vegetation. Grazing mainly by native animals in forests and occasional feral animal (e.g. pigs).	Localised partial clearing near past logging activities and tracks and previous facilities	Rehabilitation areas with structural and/or floristic components developing and persisting (post 2000, Grant and Koch 2007)	Occasional tracks and informal roads	Juvenile forest (last harvest < 20 years ago)	Extensive dieback infestation, prevalent vulnerable species, some structural impact	Aggressive weeds and non-aggressive weeds reflecting disturbance
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.	Basic vegetation structure severely impacted by disturbance. Disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds at high density, partial clearing, dieback and grazing.	Partial clearing near past logging activities and tracks and previous facilities	Rehabilitation areas with lower species diversity (pre 2000, Grant and Koch 2007) and/or early phases of regrowth and establishment of tree species with potential for shift to Good	Extensive tracks, informal roads	Logged land is expected to recover to Good (juvenile forest)	Extensive dieback infestation, dominant vulnerable species, severe structure impact	High density of aggressive weeds or presence of introduced crop species or plantation 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 crops species with isolated native trees and shrubs.	Mostly cleared areas supporting only occasional native trees or planted trees, mainly small agricultural holdings or residential and highly modified areas.	Cleared agricultural and residential areas.	Recently cleared mine areas, rehabilitation not completed.	Extensive tracks and roads	Logged land is expected to recover to Good if rehabilitation undertaken	Extensive dieback infestation, dominant vulnerable species, structure no longer intact.	Plantations, understorey is predominantly introduced species.

APPENDIX B: VASCULAR PLANT SPECIES WITH THE POTENTIAL TO OCCUR IN THE
MYARA NORTH SURVEY AREA

Note: * denotes introduced species; T denotes threatened species; P1-P4 denotes priority species; SCC = State Conservation Code; FCC = Federal Conservation Code; CE = Critically Endangered, E = Endangered, V = Vulnerable.

Family	Species	SCC	FCC	Data source									
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records	
AIZOACEAE	* <i>Aizoon pubescens</i>				x								
AMARANTHACEAE	<i>Ptilotus drummondii</i>								x			x	
	<i>Ptilotus drummondii</i> var. <i>drummondii</i>				x								
	<i>Ptilotus esquamatus</i>				x								
	<i>Ptilotus manglesii</i>				x	x	x	x			x		
	<i>Ptilotus polystachyus</i>				x								
	<i>Ptilotus</i> sp.					x			x				
ANARTHRIACEAE	<i>Anarthria humilis</i>				x								
	<i>Lyginia barbata</i>					x	x	x					
	<i>Lyginia</i> sp.							x					
APIACEAE	<i>Actinotus glomeratus</i>				x								
	<i>Actinotus leucocephalus</i>				x								
	<i>Apium prostratum</i>						x	x					
	<i>Centella asiatica</i>											x	
	<i>Daucus glochidiatus</i>				x	x						x	
	<i>Eryngium pinnatifidum</i>				x								
	<i>Eryngium pinnatifidum</i> subsp. <i>pinnatifidum</i>				x								
	<i>Homalosciadium homalocarpum</i>				x	x							
	<i>Pentapeltis peltigera</i>				x	x	x	x	x		x		
	<i>Platysace compressa</i>				x		x	x	x		x		
	<i>Platysace filiformis</i>				x		x	x	x		x		
	<i>Platysace juncea</i>				x								
	<i>Platysace tenuissima</i>						x	x	x		x		
	<i>Schoenolaena juncea</i>				x								
	<i>Xanthosia atkinsoniana</i>				x	x	x	x	x		x		
	<i>Xanthosia candida</i>				x	x	x	x	x		x		
	<i>Xanthosia ciliata</i>				x							x	
	<i>Xanthosia fruticulosa</i>				x								
	<i>Xanthosia huegelii</i>				x	x	x	x	x		x		
	<i>Xanthosia singuliflora</i>				x		x	x				x	
<i>Xanthosia tasmanica</i>						x							
<i>Xanthosia</i> sp.						x							
<i>Apiaceae</i> sp.							x						
APOCYNACEAE	* <i>Asclepias curassavica</i>				x								
	* <i>Gomphocarpus fruticosus</i>				x								
	<i>Parsonsia diaphanophleba</i>		P4		x								
	* <i>Vinca major</i>				x								
ARACEAE	* <i>Zantedeschia aethiopica</i>				x								
ARALIACEAE	<i>Hydrocotyle alata</i>				x								
	<i>Hydrocotyle callicarpa</i>				x	x					x		
	<i>Hydrocotyle diantha</i>					x							
	<i>Trachymene coerulea</i> subsp. <i>coerulea</i>				x								
	<i>Trachymene pilosa</i>				x	x	x	x			x		

APPENDIX B: VASCULAR PLANT SPECIES WITH THE POTENTIAL TO OCCUR IN THE
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Note: * denotes introduced species; T denotes threatened species; P1-P4 denotes priority species; SCC = State Conservation Code; FCC = Federal Conservation Code; CE = Critically Endangered, E = Endangered, V = Vulnerable.

Family	Species	SCC	FCC	Data source								
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records
ASTERACEAE (continued)	<i>Senecio hispidulus</i>	P4				x	x	x		x		
	<i>Senecio leucoglossus</i>			x		x	x	x				
	<i>Senecio multicaulis</i> subsp. <i>multicaulis</i>				x							
	<i>Senecio pinnatifolius</i>					x	x					
	<i>Senecio pinnatifolius</i> var. <i>latilobus</i>					x						
	<i>Senecio quadridentatus</i>					x	x	x	x	x	x	
	* <i>Senecio vulgaris</i>							x	x			
	* <i>Senecio</i> sp.								x			
	<i>Senecio</i> sp.						x	x	x	x		
	<i>Siloxerus filifolius</i>						x	x				
	<i>Siloxerus humifusus</i>						x	x	x			
	<i>Siloxerus multiflorus</i>						x					
	* <i>Sonchus asper</i>						x					
	* <i>Sonchus oleraceus</i>						x	x	x			x
	* <i>Sphaeromorphaea australis</i>						x					
	* <i>Symphyotrichum squamatum</i>						x					
	* <i>Tagetes erecta</i>						x					
	* <i>Tolpis barbata</i>						x					
	<i>Trichocline spathulata</i>						x	x	x	x	x	x
	* <i>Ursinia anthemoides</i>						x		x			
	* <i>Ursinia anthemoides</i> subsp. <i>anthemoides</i>						x					
	* <i>Vellereophyton dealbatum</i>						x	x				
	<i>Waitzia suaveolens</i> var. <i>suaveolens</i>							x		x		
	<i>Waitzia</i> sp.								x			
	<i>Xerochrysum macranthum</i>						x					
	* Asteraceae sp.								x			
	Asteraceae sp.							x	x		x	
BERBERIDACEAE	* <i>Nandina domestica</i>					x						
BORAGINACEAE	<i>Halgania corymbosa</i>		P3			x						
BORYACEAE	<i>Borya constricta</i>					x						
	<i>Borya scirpoidea</i>					x		x				
	<i>Borya sphaerocephala</i>					x	x	x	x			
BRASSICACEAE	* <i>Brassica tournefortii</i>							x				
	* <i>Raphanus raphanistrum</i>					x						
BYBLIDACEAE	<i>Byblis gigantea</i>		P3			x						
CAMPANULACEAE	<i>Isotoma hypocrateriformis</i>					x	x	x	x		x	
	<i>Lobelia anceps</i>					x						
	<i>Lobelia gibbosa</i>					x		x			x	
	<i>Lobelia heterophylla</i>					x		x				
	<i>Lobelia rarifolia</i>					x						
	<i>Lobelia rhombifolia</i>					x		x				
	<i>Lobelia rhytidosperra</i>					x						
	<i>Lobelia tenuior</i>						x					

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Note: * denotes introduced species; T denotes threatened species; P1-P4 denotes priority species; SCC = State Conservation Code; FCC = Federal Conservation Code; CE = Critically Endangered, E = Endangered, V = Vulnerable.

Family	Species	SCC	FCC	Data source									
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records	
CRASSULACEAE (continued)	<i>Crassula exserta</i>				x								
	<i>Crassula extrorsa</i>				x								
	* <i>Crassula natans</i> var. <i>minus</i>				x								
CUPRESSACEAE	<i>Callitris pyramidalis</i>				x								
CYATHEACEAE	* <i>Sphaeropteris cooperi</i>				x								
CYPERACEAE	<i>Baumea acuta</i>				x								
	<i>Baumea articulata</i>								x				
	<i>Baumea juncea</i>				x	x					x		
	<i>Baumea laxa</i>				x								
	<i>Baumea preissii</i>				x								
	<i>Baumea riparia</i>				x								
	<i>Baumea rubiginosa</i>				x								
	<i>Baumea vaginalis</i>				x		x						
	<i>Chorizandra enodis</i>				x	x							
	<i>Cyathochaeta avenacea</i>				x	x	x	x	x		x		
	<i>Cyathochaeta teretifolia</i>		P3		x								
	* <i>Cyperus brevifolius</i>					x							
	* <i>Cyperus rotundus</i>										x		
	* <i>Cyperus tenellus</i>					x							
	<i>Cyperus vaginatus</i>					x							
	<i>Eleocharis keigheryi</i>		T	V	x								
	<i>Gahnia aristata</i>					x				x			
	<i>Gahnia decomposita</i>					x	x	x	x	x	x		
	<i>Gahnia trifida</i>					x	x	x					
	<i>Isolepis cernua</i> var. <i>cernua</i>					x							
	<i>Isolepis cernua</i> var. <i>setiformis</i>					x	x						
	<i>Isolepis congrua</i>					x							
	<i>Isolepis cyperoides</i>					x							
	<i>Isolepis marginata</i>					x	x	x					
	<i>Isolepis oldfieldiana</i>					x							
	<i>Isolepis</i> sp.						x						
	<i>Lepidosperma apricola</i>					x					x		
	<i>Lepidosperma asperatum</i>					x							
	<i>Lepidosperma carphoides</i>					x							
	<i>Lepidosperma costale</i>									x			
	<i>Lepidosperma effusum</i>									x			
	<i>Lepidosperma gracile</i>							x	x		x		
<i>Lepidosperma leptostachyum</i>					x		x	x		x			
<i>Lepidosperma longitudinale</i>					x	x							
<i>Lepidosperma pruinatum</i>					x								
<i>Lepidosperma pubisquamum</i>					x	x	x	x					
<i>Lepidosperma pubisquamum</i> sens. lat.									x				
<i>Lepidosperma scabrum</i>					x								
<i>Lepidosperma squamatum</i>					x	x	x	x	x	x			
<i>Lepidosperma striatum</i>					x								
<i>Lepidosperma tenue</i>						x	x	x	x	x			

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				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records
CYPERACEAE (continued)	<i>Lepidosperma tetraquetrum</i>				x	x	x	x	x	x		
	<i>Lepidosperma tuberculatum</i>				x			x	x			
	<i>Lepidosperma</i> sp. Gosnells (A. Markey 1145)				x							
	<i>Lepidosperma</i> sp. Margaret River (B.J. Lepschi 1841)				x							
	<i>Lepidosperma</i> sp.				x	x	x	x	x			
	<i>Mesomelaena graciliceps</i>				x					x		
	<i>Mesomelaena pseudostygia</i>				x							
	<i>Mesomelaena stygia</i> subsp. <i>stygia</i>				x							
	<i>Mesomelaena tetragona</i>				x	x	x	x	x	x		
	<i>Schoenus armeria</i>				x							
	<i>Schoenus asperocarpus</i>				x							
	<i>Schoenus bifidus</i>				x	x						
	<i>Schoenus brevisetis</i>				x							
	<i>Schoenus caespititius</i>				x							
	<i>Schoenus clandestinus</i>				x	x						
	<i>Schoenus discifer</i>				x							
	<i>Schoenus efoliatus</i>				x							
	<i>Schoenus grammatophyllus</i>				x							
	<i>Schoenus laevigatus</i>				x							
	<i>Schoenus nanus</i>				x	x						
	<i>Schoenus odontocarpus</i>				x	x						
	<i>Schoenus plumosus</i>				x							
	<i>Schoenus rigens</i>				x							
	<i>Schoenus sculptus</i>				x							
	<i>Schoenus subbulbosus</i>				x							
	<i>Schoenus ?subfascicularis</i>						x					
	<i>Schoenus subflavus</i>				x							
	<i>Schoenus tenellus</i>				x							
	<i>Schoenus unispiculatus</i>				x	x						
	<i>Schoenus variicellae</i>				x							
	<i>Schoenus</i> sp. smooth culms (K.R. Newbey 7823)				x							
	<i>Schoenus</i> sp.						x	x				
	<i>Tetraria australiensis</i>	T	V	x	x	x	x	x	x	x		
	<i>Tetraria capillaris</i>				x	x	x	x	x	x		
	<i>Tetraria octandra</i>				x	x	x	x	x	x		
	<i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)				x				x			
	<i>Tetraria</i> sp.								x			
<i>Tricostularia neesii</i>					x							
Cyperaceae sp.						x						
DASYPOGONACEAE	<i>Calectasia grandiflora</i>				x							
	<i>Calectasia narragara</i>				x							
	<i>Dasyogon bromeliifolius</i>				x		x					
	<i>Kingia australis</i>				x			x	x			

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DENNSTAEDTIACEAE	<i>Pteridium esculentum</i>				x	x	x	x	x		x		
	<i>Pteridium esculentum</i> subsp. <i>esculentum</i>				x								
	<i>Pteridium</i> sp.											x	
DILLENIACEAE	<i>Hibbertia acerosa</i>				x	x	x	x	x		x		
	<i>Hibbertia amplexicaulis</i>				x	x	x	x	x		x		
	<i>Hibbertia aurea</i>				x								
	<i>Hibbertia commutata</i>				x	x	x	x	x		x		
	<i>Hibbertia commutata</i> (hairy form)						x						
	<i>Hibbertia diamesogenos</i>				x	x	x	x			x		
	<i>Hibbertia glomerata</i> subsp. <i>darlingensis</i>				x								
	<i>Hibbertia huegelii</i>				x		x	x			x		
	<i>Hibbertia hypericoides</i>				x	x	x	x			x		
	<i>Hibbertia hypericoides</i> subsp. <i>hypericoides</i>				x								
	<i>Hibbertia lasiopos</i>				x		x	x			x		
	<i>Hibbertia montana</i>				x								
	<i>Hibbertia mylnei</i>				x								
	<i>Hibbertia nymphaea</i>				x								
	<i>Hibbertia ovata</i>				x	x	x	x	x		x		
	<i>Hibbertia perfoliata</i>				x		x	x	x		x		
	<i>Hibbertia pilosa</i>				x		x						
	<i>Hibbertia polyancistra</i>	P1			x								
	<i>Hibbertia quadricolor</i>				x	x	x				x		
	<i>Hibbertia racemosa</i>											x	
<i>Hibbertia serrata</i>				x									
<i>Hibbertia silvestris</i>								x	x				
<i>Hibbertia spicata</i>				x									
<i>Hibbertia stellaris</i>				x									
<i>Hibbertia striata</i>				x									
<i>Hibbertia subvaginata</i>				x	x								
<i>Hibbertia vaginata</i>				x			x						
<i>Hibbertia</i> sp.				x				x	x				
DIOSCOREACEAE	<i>Dioscorea hastifolia</i>				x								
DROSERACEAE	<i>Drosera bulbosa</i>					x					x		
	<i>Drosera callistos</i>				x								
	<i>Drosera collina</i>				x								
	<i>Drosera drummondii</i>				x								
	<i>Drosera erythrorhiza</i>				x	x		x			x		
	<i>Drosera gigantea</i>				x	x	x	x					
	<i>Drosera glanduligera</i>				x								
	<i>Drosera hyperostigma</i>				x		x						
	<i>Drosera intricata</i>				x								
	<i>Drosera leucoblata</i>					x							
	<i>Drosera macrantha</i>				x	x		x			x		
	<i>Drosera mannii</i>				x								
	<i>Drosera marchantii</i>				x								
	<i>Drosera menziesii</i>				x	x		x					

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				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records
FABACEAE (continued)	<i>Bossiaea aquifolium</i>	P2			x		x	x		x		
	<i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i>			x	x				x			
	<i>Bossiaea eriocarpa</i>			x		x	x		x			
	<i>Bossiaea modesta</i>			x								
	<i>Bossiaea ornata</i>			x	x	x	x	x	x			
	<i>Bossiaea pulchella</i>			x								
	<i>Bossiaea rufa</i>			x								
	<i>Callistachys lanceolata</i>						x	x				
	<i>Chorizema cordatum</i>					x		x	x	x		
	<i>Chorizema dicksonii</i>					x	x					
	<i>Chorizema ilicifolium</i>						x				x	
	<i>Chorizema nanum</i>					x						
	<i>Chorizema rhombeum</i>					x		x			x	
	<i>Chorizema ulotropis</i>			P4		x						
	<i>Cristonia biloba</i> subsp. <i>biloba</i>		x									
	<i>Daviesia brachyphylla</i>		x									
	<i>Daviesia cordata</i>		x			x			x			
	<i>Daviesia costata</i>		x									
	<i>Daviesia decipiens</i>		x									
	<i>Daviesia decurrens</i>		x				x	x	x	x		
	<i>Daviesia decurrens</i> subsp. <i>decurrens</i>		x									
	<i>Daviesia horrida</i>		x		x	x	x	x	x	x		
	<i>Daviesia incrassata</i>					x	x	x				
	<i>Daviesia longifolia</i>							x				
	<i>Daviesia nudiflora</i> subsp. <i>nudiflora</i>					x						
	<i>Daviesia physodes</i>					x		x	x		x	
	<i>Daviesia preissii</i>				x		x	x	x			
	<i>Daviesia rhombifolia</i>				x		x	x				
	<i>Daviesia</i> sp.						x		x			
	<i>Dillwynia laxiflora</i>				x	x						
	<i>Dillwynia</i> sp.						x					
	<i>Eutaxia parvifolia</i>				x				x			
	<i>Eutaxia virgata</i>				x				x			
	<i>Gastrolobium asperum</i>				x							
	<i>Gastrolobium bilobum</i>								x			
	<i>Gastrolobium calycinum</i>								x			
	<i>Gastrolobium capitatum</i>				x	x						
	<i>Gastrolobium dilatatum</i>				x							
	<i>Gastrolobium ebracteolatum</i>				x		x	x		x		
	<i>Gastrolobium spathulatum</i>				x							
	<i>Gastrolobium spinosum</i>				x	x		x				
	<i>Gastrolobium villosum</i>				x			x	x			
	* <i>Genista monspessulana</i>				x							
	* <i>Genista</i> sp. x <i>Genista monspessulana</i>				x							
	<i>Gompholobium aristatum</i>				x							
	<i>Gompholobium capitatum</i>				x	x				x		
	<i>Gompholobium confertum</i>				x							
<i>Gompholobium cyaninum</i>				x			x		x			
<i>Gompholobium knightianum</i>				x		x	x	x	x			

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FABACEAE (continued)	<i>Gompholobium marginatum</i>				x	x	x	x	x	x		
	<i>Gompholobium polymorphum</i>				x	x	x	x	x	x		
	<i>Gompholobium preissii</i>				x	x	x	x	x	x		
	<i>Gompholobium tomentosum</i>				x			x	x			
	<i>Gompholobium</i> sp.					x					x	
	<i>Hardenbergia comptoniana</i>							x	x			
	<i>Hardenbergia</i> sp.							x				
	<i>Hovea chorizemifolia</i>				x	x	x	x	x	x		
	<i>Hovea pungens</i>				x							
	<i>Hovea trisperma</i>				x		x	x	x	x		
	<i>Hovea trisperma</i> var. <i>grandiflora</i>				x							
	<i>Hovea trisperma</i> var. <i>trisperma</i>						x					
	<i>Hovea</i> sp.						x					
	<i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>						x			x		
	<i>Jacksonia alata</i>				x			x				
	<i>Jacksonia furcellata</i>				x			x				
	<i>Jacksonia lehmannii</i>				x							
	<i>Jacksonia restioides</i>				x							
	<i>Jacksonia sternbergiana</i>				x							
	<i>Kennedia carinata</i>				x							
	<i>Kennedia coccinea</i>				x	x	x	x	x	x		
	<i>Kennedia microphylla</i>				x							
	<i>Kennedia prostrata</i>				x	x	x	x	x	x		
	<i>Kennedia stirlingii</i>				x							
	<i>Labichea lanceolata</i>				x							
	<i>Labichea lanceolata</i> subsp. <i>lanceolata</i>				x							
	<i>Labichea punctata</i>				x	x	x	x	x	x		
	* <i>Lathyrus tingitanus</i>				x							
	<i>Latrobea tenella</i>						x					
	* <i>Lotus angustissimus</i>				x							
	* <i>Lotus subbiflorus</i>				x							
	* <i>Lotus uliginosus</i>				x							
	* <i>Lupinus cosentinii</i>				x							
	* <i>Lupinus luteus</i>				x							
	* <i>Medicago</i> sp.						x					
	<i>Mirbelia dilatata</i>				x	x	x	x	x	x		
	<i>Mirbelia floribunda</i>				x							
	<i>Mirbelia spinosa</i>				x							
	* <i>Ornithopus pinnatus</i>				x							
	<i>Paraserianthes lophantha</i>							x	x	x	x	
	<i>Paraserianthes lophantha</i> subsp. <i>lophantha</i>				x	x	x	x				
	<i>Paraserianthes</i> sp.								x			
	* <i>Podalyria sericea</i>				x							
<i>Pultenaea ochreatea</i>				x								
* <i>Robinia pseudoacacia</i>								x				
<i>Sphaerolobium linophyllum</i>				x		x				x		
<i>Sphaerolobium macranthum</i>				x								
<i>Sphaerolobium medium</i>				x	x	x	x	x	x			
<i>Sphaerolobium vimineum</i>						x	x					

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FABACEAE (continued)	<i>Sphaerolobium</i> sp.					x							
	<i>Templetonia drummondii</i>				x	x							
	* <i>Trifolium angustifolium</i> var. <i>angustifolium</i>				x								
	* <i>Trifolium arvense</i>					x							
	* <i>Trifolium arvense</i> var. <i>arvense</i>				x								
	* <i>Trifolium campestre</i>				x								
	* <i>Trifolium cernuum</i>				x								
	* <i>Trifolium dubium</i>				x						x		
	* <i>Trifolium incarnatum</i> var. <i>incarnatum</i>				x								
	* <i>Trifolium ornithopodioides</i>				x								
	* <i>Trifolium</i> sp.								x				
	* <i>Vicia sativa</i>				x								
	<i>Viminaria juncea</i>				x	x	x	x			x		
	Fabaceae sp.						x						
GENTIANACEAE	* <i>Centaurium erythraea</i>				x	x	x	x			x		
	<i>Centaurium</i> sp.							x					
	* <i>Cicendia filiformis</i>				x								
GERANIACEAE	* <i>Erodium botrys</i>				x								
	<i>Erodium</i> sp.								x				
	<i>Geranium retrorsum</i>				x								
	<i>Geranium</i> sp.					x							
	<i>Pelargonium littorale</i>				x								
	* <i>Pelargonium x domesticum</i>				x								
GOODENIACEAE	<i>Anthotium junciforme</i>				x								
	<i>Anthotium</i> sp. Darling Range (F. Hort & B. Hort 2431)	P1			x								
	<i>Dampiera alata</i>				x	x	x				x		
	<i>Dampiera hederacea</i>				x	x	x	x	x		x		
	<i>Dampiera linearis</i>				x	x	x	x	x		x		
	<i>Dampiera pedunculata</i>										x		
	<i>Goodenia claytoniacea</i>				x								
	<i>Goodenia coerulea</i>				x	x							
	<i>Goodenia drummondii</i> subsp. <i>megaphylla</i>				x								
	<i>Goodenia ?filiformis</i>						x						
	<i>Goodenia micrantha</i>				x								
	<i>Lechenaultia biloba</i>				x	x	x	x	x		x		
	<i>Lechenaultia expansa</i>				x								
	<i>Lechenaultia floribunda</i>				x								
	<i>Scaevola calliptera</i>				x	x	x	x	x		x		
	<i>Scaevola glandulifera</i>				x	x							
	<i>Scaevola pilosa</i>				x			x			x		
	<i>Scaevola striata</i>				x								
	<i>Scaevola</i> sp.						x						
	<i>Velleia trinervis</i>				x								
	<i>Verreauxia verreauxii</i>	P4			x								
	Goodeniaceae sp.						x						

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MYRTACEAE (continued)	<i>Eucalyptus</i> sp.					x					x		
	<i>Hypocalymma angustifolium</i>				x	x	x	x	x		x		
	<i>Hypocalymma angustifolium</i> subsp. Dandaragan plateau (S. Patrick 702A)				x								
	<i>Hypocalymma cordifolium</i>				x		x	x	x		x		
	<i>Hypocalymma cordifolium</i> subsp. <i>cordifolium</i>						x	x					
	<i>Hypocalymma robustum</i>				x		x	x	x				
	<i>Kunzea ericifolia</i>						x	x					
	<i>Kunzea glabrescens</i>				x		x	x	x				
	<i>Kunzea micrantha</i>				x	x							
	<i>Kunzea micrantha</i> subsp. <i>micrantha</i>				x								
	<i>Kunzea micrantha</i> subsp. <i>petiolata</i>				x								
	<i>Kunzea recurva</i>				x	x							
	<i>Leptospermum erubescens</i>				x		x	x	x				
	* <i>Leptospermum laevigatum</i>				x				x				
	<i>Melaleuca holosericea</i>				x								
	<i>Melaleuca incana</i>								x			x	
	<i>Melaleuca incana</i> subsp. <i>incana</i>				x	x	x	x					
	<i>Melaleuca lateritia</i>						x	x	x				
	<i>Melaleuca parviceps</i>				x		x	x	x				
	<i>Melaleuca pauciflora</i>						x	x					
	<i>Melaleuca preissiana</i>				x	x	x	x				x	
	<i>Melaleuca pungens</i>				x								
	<i>Melaleuca radula</i>				x	x							
	<i>Melaleuca raphiophylla</i>				x			x					
	<i>Melaleuca scabra</i>						x						
	<i>Melaleuca seriata</i>				x								
	<i>Melaleuca subtrigona</i>				x								
	<i>Melaleuca trichophylla</i>				x				x	x			
	<i>Melaleuca viminea</i>							x	x	x			
	<i>Melaleuca viminea</i> subsp. <i>viminea</i>				x	x							
	<i>Melaleuca</i> sp.						x						
	<i>Paragonis grandiflora</i>				x								
	<i>Pericalymma ellipticum</i>				x			x	x	x		x	
	<i>Pericalymma ellipticum</i> var. <i>ellipticum</i>				x	x							
	<i>Pericalymma ellipticum</i> var. <i>floridum</i>				x								
	<i>Regelia ciliata</i>				x	x							
	<i>Taxandria linearifolia</i>				x	x	x	x	x			x	
	<i>Thryptomene australis</i> subsp. <i>australis</i>				x								
	<i>Verticordia acerosa</i> var. <i>acerosa</i>				x								
	<i>Verticordia acerosa</i> var. <i>preissii</i>				x								
	<i>Verticordia bifimbriata</i>				x								
	<i>Verticordia chrysantha</i>				x								
	<i>Verticordia densiflora</i>								x				
	<i>Verticordia densiflora</i> var. <i>cespitosa</i>				x								
	<i>Verticordia densiflora</i> var. <i>densiflora</i>				x				x				
	<i>Verticordia endlicheriana</i> var. <i>endlicheriana</i>				x								
	<i>Verticordia fimbriata</i> subsp. <i>fimbriata</i>		T	E	x	x							
	<i>Verticordia ?huegelii</i>								x				

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Family	Species	SCC	FCC	Data source											
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records			
POACEAE (continued)	* <i>Chloris gayana</i>				x										
	* ? <i>Cynodon dactylon</i>					x									
	<i>Dichelachne crinita</i>				x		x								
	* <i>Ehrharta calycina</i>				x										
	* <i>Ehrharta longiflora</i>				x										
	* <i>Ehrharta</i> sp.				x										
	* <i>Eleusine indica</i>				x										
	<i>Eragrostis brownii</i>				x										
	<i>Eragrostis elongata</i>				x										
	* <i>Glyceria declinata</i>				x										
	<i>Hemarthria uncinata</i>				x										
	<i>Lachnagrostis filiformis</i>											x			
	<i>Lachnagrostis plebeia</i>				x										
	* <i>Lagurus ovatus</i>				x										
	* <i>Lolium rigidum</i>				x										
	<i>Lolium</i> sp.					x									
	* <i>Melinis repens</i>				x										
	<i>Microlaena stipoides</i>				x										
	<i>Microlaena stipoides</i> var. <i>stipoides</i>				x	x									
	<i>Neurachne alopecuroidea</i>				x	x	x	x	x		x				
	<i>Neurachne</i> sp.							x							
	* <i>Panicum milliaceum</i>				x										
	* <i>Paspalum dilatatum</i>				x										
	* <i>Pentameris airoides</i>				x	x									
	* <i>Pentameris airoides</i> subsp. <i>airoides</i>				x										
	* <i>Poa annua</i>				x										
	<i>Poa drummondiana</i>				x										
	<i>Poa porphyroclados</i>				x										
	<i>Rytidosperma caespitosum</i>				x	x	x	x	x		x				
	<i>Rytidosperma occidentale</i>				x				x						
	<i>Rytidosperma pilosum</i>				x										
	<i>Rytidosperma setaceum</i>				x							x			
	<i>Rytidosperma</i> sp.						x	x							
	* <i>Setaria italica</i>				x										
	* <i>Setaria verticillata</i>				x										
	* <i>Sorghum halepense</i>				x										
	<i>Spartochloa scirpoidea</i>								x						
	<i>Tetrarrhena laevis</i>				x	x	x	x	x		x				
	* <i>Urochloa mutica</i>				x										
	* <i>Vulpia bromoides</i>				x										
	* <i>Vulpia muralis</i>				x										
	* <i>Vulpia myuros</i>				x	x						x			
	* <i>Vulpia myuros</i> forma <i>myuros</i>				x										
	* <i>Vulpia</i> sp.						x								
	Poaceae sp.						x	x	x						
	PODOCARPACEAE	<i>Podocarpus drouynianus</i>									x				

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POLYGALACEAE	<i>Comesperma calymega</i>				x	x	x	x	x	x		
	<i>Comesperma ciliatum</i>				x	x	x					
	<i>Comesperma confertum</i>							x				
	<i>Comesperma flavum</i>				x							
	<i>Comesperma polygaloides</i>					x	x					
	<i>Comesperma scoparium</i>				x							
	<i>Comesperma virgatum</i>				x	x	x	x	x	x		
	<i>Comesperma volubile</i>					x						
	<i>Comesperma</i> sp.							x				
POLYGONACEAE	<i>Muehlenbeckia adpressa</i>				x							
	* <i>Polygonum aviculare</i>				x							
	* <i>Rumex acetosella</i>				x							
	* <i>Rumex crispus</i>				x							
POTAMOGETONACEAE	<i>Potamogeton ochreateus</i>				x							
PRIMULACEAE	* <i>Lysimachia arvensis</i>				x	x	x	x			x	
	<i>Samolus junceus</i>					x		x				
PROTEACEAE	<i>Adenanthos barbiger</i>				x		x	x	x	x		
	<i>Adenanthos meisneri</i>				x							
	<i>Adenanthos obovatus</i>				x		x	x	x			
	<i>Banksia armata</i>				x			x	x			
	<i>Banksia armata</i> var. <i>armata</i>				x			x				
	<i>Banksia attenuata</i>				x	x						
	<i>Banksia bipinnatifida</i>				x			x				
	<i>Banksia bipinnatifida</i> subsp. <i>bipinnatifida</i>				x			x				
	<i>Banksia dallaneyi</i>				x			x			x	
	<i>Banksia dallaneyi</i> subsp. <i>dallaneyi</i> var. <i>dallaneyi</i>				x	x	x	x	x			
	<i>Banksia dallaneyi</i> subsp. <i>dallaneyi</i> var. <i>mellicula</i>				x							
	<i>Banksia dallaneyi</i> subsp. <i>sylvestris</i>				x			x				
	<i>Banksia grandis</i>				x	x	x	x	x		x	
	<i>Banksia kippistiana</i>				x							
	<i>Banksia littoralis</i>				x	x	x	x	x		x	
	<i>Banksia nivea</i>				x						x	
	<i>Banksia polycephala</i>				x							
	<i>Banksia recurvistylis</i>				x							
	<i>Banksia seminuda</i>							x	x			
	<i>Banksia sessilis</i>							x	x	x	x	
	<i>Banksia sessilis</i> var. <i>sessilis</i>					x		x				
	<i>Banksia sphaerocarpa</i>					x			x	x		
	<i>Banksia sphaerocarpa</i> var. <i>sphaerocarpa</i>					x						
	<i>Banksia squarrosa</i> subsp. <i>squarrosa</i>					x		x				
	<i>Banksia telmatiaea</i>					x						
	<i>Banksia undata</i>					x			x	x		
<i>Banksia undata</i> var. <i>splendens</i>					x							

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				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records		
PROTEACEAE (continued)	<i>Banksia undata</i> var. <i>undata</i>				x									
	<i>Banksia</i> sp.					x			x					
	<i>Conospermum canaliculatum</i>				x									
	<i>Conospermum canaliculatum</i> subsp. <i>canaliculatum</i>				x									
	<i>Conospermum capitatum</i>							x	x			x		
	<i>Conospermum capitatum</i> subsp. <i>glabratum</i>				x			x	x					
	<i>Conospermum huegelii</i>				x									
	<i>Conospermum stoechadis</i>				x									
	<i>Conospermum stoechadis</i> subsp. <i>sclerophyllum</i>				x									
	<i>Conospermum stoechadis</i> subsp. <i>stoechadis</i>				x									
	<i>Grevillea bipinnatifida</i>				x			x	x		x			
	<i>Grevillea bipinnatifida</i> subsp. <i>bipinnatifida</i>				x	x			x					
	<i>Grevillea centristigma</i>				x									
	<i>Grevillea crowleyae</i>	P2			x									
	<i>Grevillea diversifolia</i>				x			x	x					
	<i>Grevillea diversifolia</i> subsp. <i>diversifolia</i>				x	x		x	x					
	<i>Grevillea endlicheriana</i>				x									
	<i>Grevillea flexuosa</i>	T	V	x	x									
	<i>Grevillea leptobotrys</i>				x									
	<i>Grevillea manglesii</i> subsp. <i>dissectifolia</i>	P3			x									
	<i>Grevillea manglesii</i> subsp. <i>manglesii</i>				x				x		x			
	<i>Grevillea manglesii</i> subsp. <i>ornithopoda</i>	P2			x									x
	<i>Grevillea pilulifera</i>				x									
	<i>Grevillea pimeleoides</i>	P4			x						x			
	<i>Grevillea preissii</i>								x					
	<i>Grevillea pulchella</i>				x			x	x		x			
	<i>Grevillea pulchella</i> subsp. <i>ascendens</i>				x				x					
	<i>Grevillea quercifolia</i>				x			x	x			x		
	<i>Grevillea synapheae</i>											x		
	<i>Grevillea synapheae</i> subsp. <i>synapheae</i>				x									
	<i>Grevillea ?trifida</i>								x					
	<i>Grevillea wilsonii</i>				x			x	x		x	x		
	<i>Hakea amplexicaulis</i>				x			x	x		x	x		
	<i>Hakea candolleana</i>				x									
	<i>Hakea ceratophylla</i>				x									
	<i>Hakea cyclocarpa</i>				x			x	x		x	x		
	<i>Hakea erinacea</i>				x				x					
	<i>Hakea gilbertii</i>				x									
	<i>Hakea incrassata</i>				x	x		x	x		x			
	<i>Hakea lasianthoides</i>				x									
	<i>Hakea lissocarpha</i>				x	x		x	x		x	x		
	<i>Hakea marginata</i>				x	x								
	<i>Hakea neospathulata</i>				x									
<i>Hakea petiolaris</i>								x		x				
<i>Hakea petiolaris</i> subsp. <i>petiolaris</i>				x				x						
<i>Hakea prostrata</i>				x	x		x	x			x			
<i>Hakea ruscifolia</i>				x	x		x	x		x	x			
<i>Hakea stenocarpa</i>				x			x	x						

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				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records		
PROTEACEAE (continued)	<i>Hakea sulcata</i>				x									
	<i>Hakea trifurcata</i>				x		x	x						
	<i>Hakea undulata</i>				x		x	x	x					
	<i>Hakea varia</i>				x	x	x	x	x	x				
	<i>Isopogon asper</i>				x									
	<i>Isopogon autumnalis</i>	P3			x									
	<i>Isopogon crithmifolius</i>				x									
	<i>Isopogon dubius</i>				x			x	x					
	<i>Isopogon sphaerocephalus</i>				x			x	x					
	<i>Isopogon</i> sp. Darling Range (F. Hort 1662)				x			x	x					
	<i>Lambertia multiflora</i> var. <i>darlingensis</i>				x									
	<i>Persoonia angustiflora</i>				x	x				x				
	<i>Persoonia elliptica</i>				x		x	x	x	x	x			
	<i>Persoonia longifolia</i>				x	x	x	x	x	x	x			
	<i>Persoonia quinquenervis</i>				x									
	<i>Persoonia saccata</i>				x									
	<i>Petrophile biloba</i>				x				x					
	<i>Petrophile brevifolia</i>				x									
	<i>Petrophile filifolia</i> subsp. <i>laxa</i>	P3			x									
	<i>Petrophile heterophylla</i>							x						
	<i>Petrophile linearis</i>					x			x					
	<i>Petrophile macrostachya</i>					x								
	<i>Petrophile seminuda</i>					x								
	<i>Petrophile serruriae</i>					x			x	x				
	<i>Petrophile squamata</i>					x								
	<i>Petrophile squamata</i> subsp. northern (J. Monks 40)					x								
	<i>Petrophile striata</i>					x	x		x	x				
	<i>Petrophile</i> sp.									x				
	<i>Stirlingia latifolia</i>					x			x					
	<i>Stirlingia simplex</i>					x				x				
	<i>Synaphea acutiloba</i>					x								
	<i>Synaphea cuneata</i>					x								
	<i>Synaphea damopsis</i>					x			x					
	<i>Synaphea decorticans</i>					x								
	<i>Synaphea gracillima</i>					x	x		x					
	<i>Synaphea odocoileops</i>	P1				x								
	<i>Synaphea pandurata</i>	P3				x								
	<i>Synaphea petiolaris</i>					x		x	x					
	<i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>					x			x					
	<i>Synaphea pinnata</i>					x								
<i>Synaphea spinulosa</i>														
<i>Synaphea</i> sp. Fairbridge Farm (D. Papenfus 696)	T	CE		x	x									
<i>Synaphea</i> sp. Pinjarra Plain (A.S. George 17182)	T	E			x									
<i>Synaphea</i> sp. Serpentine (G.R. Brand 103)	T	CE		x	x									
<i>Synaphea</i> sp.									x					
<i>Xylomelum occidentale</i>					x		x	x						

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PTERIDACEAE	<i>Cheilanthes austrotenuifolia</i>				x			x					
	<i>Cheilanthes distans</i>				x								
	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>				x			x					
	<i>Cheilanthes</i> sp.							x					
RANUNCULACEAE	<i>Clematis pubescens</i>				x	x	x	x	x	x			
	<i>Ranunculus colonorum</i>				x	x	x		x		x		
	* <i>Ranunculus muricatus</i>										x		
RESTIONACEAE	<i>Alexgeorgea nitens</i>						x						
	<i>Chaetanthus aristatus</i>				x								
	<i>Cytogonidium leptocarpoides</i>				x								
	<i>Desmocladus asper</i>				x								
	<i>Desmocladus castaneus</i>				x								
	<i>Desmocladus fasciculatus</i>				x	x	x	x	x	x	x		
	<i>Desmocladus flexuosus</i>				x	x	x	x	x	x	x		
	<i>Desmocladus lateriflorus</i>				x								
	<i>Desmocladus</i> sp.									x			
	<i>Dielsia stenostachya</i>				x								
	<i>Empodisma gracillimum</i>											x	
	<i>Hypolaena exsulca</i>				x	x	x	x				x	
	<i>Lepidobolus preissianus</i>				x	x							
	<i>Lepidobolus preissianus</i> subsp. <i>preissianus</i>				x								
	<i>Leptocarpus canus</i>						x						
	<i>Leptocarpus coangustatus</i>						x	x				x	
	<i>Leptocarpus decipiens</i>					x	x						
	<i>Leptocarpus kraussii</i>					x							
	<i>Leptocarpus scariosus</i>						x	x					
	<i>Leptocarpus</i> sp.						x						
	<i>Lepyrodia glauca</i>					x	x						
	<i>Lepyrodia heleocharoides</i>		P3			x							
	<i>Lepyrodia macra</i>					x							
	<i>Lepyrodia muirii</i>					x							
	<i>Lepyrodia riparia</i>					x							
	<i>Loxocarya cinerea</i>					x	x	x	x	x		x	
	<i>Loxocarya striata</i>								x	x			
	<i>Sporadanthus rivularis</i>							x					
	<i>Tremulina tremula</i>					x							
Restionaceae sp.						x	x						
RHAMNACEAE	<i>Cryptandra arbutiflora</i>				x								
	<i>Cryptandra arbutiflora</i> var. <i>arbutiflora</i>				x	x		x					
	<i>Cryptandra nutans</i>				x								
	<i>Cryptandra</i> sp.					x							
	<i>Stenanthemum coronatum</i>				x								
	<i>Stenanthemum emarginatum</i>				x								
	<i>Stenanthemum nanum</i>				x								
	<i>Trymalium ledifolium</i>				x		x	x	x		x		
	<i>Trymalium ledifolium</i> var. <i>ledifolium</i>				x	x							

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RHAMNACEAE (continued)	<i>Trymalium ledifolium</i> var. <i>rosmarinifolium</i>				x								
	<i>Trymalium odoratissimum</i>						x	x			x		
	<i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i>				x	x	x	x	x		x		
ROSACEAE	<i>Acaena echinata</i>				x								
	* <i>Prunus cerasifera</i>				x								
	* <i>Rubus anglocandicans</i>				x								
	* <i>Rubus fruticosus</i> aggregate			x									
	* <i>Rubus laudatus</i>				x								
	* <i>Rubus loganobaccus</i>				x								
	* <i>Rubus ulmifolius</i>				x								
	* <i>Rubus ulmifolius</i> var. <i>ulmifolius</i>				x								
RUBIACEAE	* <i>Galium divaricatum</i>				x								
	* <i>Galium murale</i>				x								
	<i>Opercularia apiciflora</i>				x	x	x				x		
	<i>Opercularia echinocephala</i>				x	x	x	x	x		x		
	<i>Opercularia hispidula</i>				x	x	x	x			x		
	<i>Opercularia vaginata</i>				x	x		x			x		
	<i>Opercularia</i> sp.					x							
RUPPIACEAE	<i>Ruppia polycarpa</i>				x								
RUTACEAE	<i>Asterolasia pallida</i>				x			x	x				
	<i>Boronia crenulata</i>				x		x	x	x				
	<i>Boronia crenulata</i> subsp. <i>crenulata</i> var. <i>crenulata</i>				x		x						
	<i>Boronia crenulata</i> subsp. <i>viminea</i>				x	x	x	x					
	<i>Boronia fastigiata</i>				x	x	x	x	x		x		
	<i>Boronia molloyae</i>				x		x	x	x		x		
	<i>Boronia ramosa</i>				x								
	<i>Boronia ramosa</i> subsp. <i>ramosa</i>				x								
	<i>Boronia scabra</i> subsp. <i>scabra</i>				x								
	<i>Boronia spathulata</i>						x						
	<i>Boronia tenuis</i>		P4		x								x
	<i>Boronia</i> sp.					x	x						
	<i>Diplolaena microcephala</i>							x					
	<i>Philothea nodiflora</i> subsp. <i>latericola</i>				x								
	<i>Philothea spicata</i>				x	x	x	x	x		x		
	Rutaceae sp.								x				
SALICACEAE	* <i>Salix</i> spp. except <i>S. babylonica</i> , <i>S. x calodendron</i> & <i>S. x reichardtii</i>				x								
SALVINIACEAE	* <i>Salvinia molesta</i>				x								
SANTALACEAE	<i>Exocarpos sparteus</i>							x					
	<i>Leptomeria cunninghamii</i>				x	x	x	x	x		x		

APPENDIX B: VASCULAR PLANT SPECIES WITH THE POTENTIAL TO OCCUR IN THE
MYARA NORTH SURVEY AREA

Note: * denotes introduced species; T denotes threatened species; P1-P4 denotes priority species; SCC = State Conservation Code; FCC = Federal Conservation Code; CE = Critically Endangered, E = Endangered, V = Vulnerable.

Family	Species	SCC	FCC	Data source									
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records	
SAPINDACEAE	<i>Diplopeltis huegelii</i> subsp. <i>huegelii</i>				x								
	<i>Diplopeltis huegelii</i> subsp. <i>lehmannii</i>				x								
	<i>Dodonaea ceratocarpa</i>				x			x	x				
	<i>Dodonaea pinifolia</i>				x								
	<i>Dodonaea viscosa</i> subsp. <i>angustissima</i>								x				
SCROPHULARIACEAE	* <i>Phyllopodium cordatum</i>				x								
	* <i>Verbascum virgatum</i>				x			x					
SOLANACEAE	<i>Anthocercis gracilis</i>	T	V	x	x								
	* <i>Datura ferox</i>				x								
	* <i>Lycium ferocissimum</i>				x								
	* <i>Solanum elaeagnifolium</i>				x								
STYLIDIACEAE	<i>Levenhookia dubia</i>					x							
	<i>Levenhookia preissii</i>												
	<i>Levenhookia pusilla</i>				x	x	x	x			x		
	<i>Levenhookia stipitata</i>				x	x		x					
	<i>Stylidium adpressum</i>				x								
	<i>Stylidium amoenum</i>				x	x	x	x	x		x		
	<i>Stylidium amoenum</i> var. <i>amoenum</i>				x								
	<i>Stylidium amoenum</i> var. <i>caulescens</i>				x								
	<i>Stylidium androsaceum</i>				x		x				x		
	<i>Stylidium brunonianum</i>				x	x	x	x					
	<i>Stylidium bulbiferum</i>				x	x	x	x			x		
	<i>Stylidium calcaratum</i>				x	x	x				x		
	<i>Stylidium carnosum</i>				x								
	<i>Stylidium ciliatum</i>				x	x			x	x			
	<i>Stylidium crassifolium</i>				x	x	x				x		
	<i>Stylidium despectum</i>				x								
	<i>Stylidium dichotomum</i>				x		x			x			
	<i>Stylidium diuroides</i>				x								
	<i>Stylidium diuroides</i> subsp. <i>diuroides</i>				x				x				
	<i>Stylidium divaricatum</i>				x								
	<i>Stylidium diversifolium</i>				x								
	<i>Stylidium ecorne</i>				x								
	<i>Stylidium emarginatum</i>				x	x							
	<i>Stylidium eriopodum</i>				x								
	<i>Stylidium guttatum</i>				x	x							
	<i>Stylidium hispidum</i>				x							x	
	<i>Stylidium ireneae</i>		P4		x	x	x						
	<i>Stylidium junceum</i>				x		x	x			x		
	<i>Stylidium lateriticola</i>				x			x			x		
	<i>Stylidium lineatum</i>				x		x						
<i>Stylidium longitubum</i>		P4			x	x							
<i>Stylidium paulineae</i>					x								
<i>Stylidium perpusillum</i>					x								
<i>Stylidium petiolare</i>					x	x							
<i>Stylidium piliferum</i>					x		x	x	x	x			

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Note: * denotes introduced species; T denotes threatened species; P1-P4 denotes priority species; SCC = State Conservation Code; FCC = Federal Conservation Code; CE = Critically Endangered, E = Endangered, V = Vulnerable.

Family	Species	SCC	FCC	Data source								
				EPBC	Naturemap	MCPL 2006	MCPL 2011	MCPL 2012	MCPL 2019	Permanent Plots Myara North	DBCA TPFL Sites	DBCA WAH records
XANTHORRHOEACEAE (continued)	<i>Xanthorrhoea gracilis</i>				x	x	x	x	x	x		
	<i>Xanthorrhoea preissii</i>				x	x	x	x	x	x		
ZAMIACEAE	<i>Macrozamia riedlei</i>				x	x	x	x	x	x		
ZYGOPHYLLACEAE	* <i>Tribulus terrestris</i>				x							

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Anthocercis gracilis</i>	Solanaceae	T	Vulnerable	<p>Habit: Erect, spindly shrub, to 0.6 (-1) m high.</p> <p>Flower colour: yellow-green</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sandy or loamy soils. Granite outcrops.</p> <p>IBRA Distribution: AVW, JAF</p> <p>Florabase records: 29</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Caladenia huegelii</i>	Orchidaceae	T	Endangered	<p>Habit: Tuberos, perennial, herb, 0.25-0.6 m high.</p> <p>Flower colour: green & cream & red</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Grey or brown sand, clay loam.</p> <p>IBRA Distribution: JAF, SCP</p> <p>Florabase records: 41</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Diuris drummondii</i>	Orchidaceae	T	Vulnerable	<p>Habit: Tuberos, perennial, herb, 0.5-1.05 m high.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Low-lying depressions, swamps</p> <p>IBRA Distribution: AVW, JAF, SWA, WAR</p> <p>Florabase records: 51</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Diuris micrantha</i>	Orchidaceae	T	Vulnerable	Habit: Tuberous, perennial, herb, 0.3-0.6 m high. Flower colour: yellow & brown Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Brown loamy clay. Winter-wet swamps, in shallow water. IBRA Distribution: JAF, SWA Florabase records: 7	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Diuris purdiei</i>	Orchidaceae	T	Endangered	Habit: Tuberous, perennial, herb, 0.15-0.35 m high. Flower colour: yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Grey-black sand, moist. Winter-wet swamps. IBRA Distribution: JAF, SWA Florabase records: 24	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Drakaea elastica</i>	Orchidaceae	T	Endangered	Habit: Tuberous, perennial, herb, 0.12-0.3 m high. Flower colour: red & green & yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: White or grey sand. Low-lying situations adjoining winter-wet swamps. IBRA Distribution: SWA Florabase records: 19	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Drakaea micrantha</i>	Orchidaceae	T	Vulnerable	Habit: Tuberous, perennial, herb, 0.15-0.3 m high. Flower colour: red & yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: White-grey sand. IBRA Distribution: JAF, SWA, WAR Florabase records: 49	Low			
<i>Eleocharis keigheryi</i>	Cyperaceae	T	Vulnerable	Habit: Rhizomatous, clumped perennial, grass-like or herb (sedge), to 0.4 m high. Flower colour: green Flowering period (indicated in green): J F M A M J J A S O N D Soils: Clay, sandy loam. Emergent in freshwater: creeks, claypans. IBRA Distribution: AVW, GES, JAF, SWA Florabase records: 56	Moderate			
<i>Eucalyptus x balanites</i>	Myrtaceae	T	Endangered	Habit: Mallee to 5 m high, bark rough, flaky. Flower colour: white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Sandy soils with lateritic gravel. IBRA Distribution: GES, SWA Florabase records: 11	Low			

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Grevillea flexuosa</i>	Proteaceae	T	Vulnerable	<p>Habit: Irregular, few-branched, non-lignotuberous shrub, to 2 m high.</p> <p>Flower colour: creamy-yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Red-brown sand with laterite & gravel, sand over granite. Ridgtop plateau & associated breakaways.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 43</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Lasiopetalum pterocarpum</i>	Malvaceae	T	Endangered	<p>Habit: Open, multi-stemmed shrub (with distinctly winged fruit), to 1.2 m high.</p> <p>Flower colour: pink</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Dark red-brown loam or clayey sand over granite. On sloping banks near creeklines.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 11</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate	Darling Scarp, DS2		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Synaphea</i> sp. Fairbridge Farm (D. Papenfus 696)	Proteaceae	T	Critically Endangered	<p>Habit: Dense, clumped shrub, to 0.3 m high, to 0.4 m wide.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sandy with lateritic pebbles. Near winter-wet flats.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 31</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Synaphea</i> sp. Pinjarra Plain (A.S. George 17182)	Proteaceae	T	Endangered	Habit: Erect, clumped shrub (sub-shrub), to 0.8 m high. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Grey sandy loam or clay, grey-brown clayey sand, brown clayey loam, laterite. Flats, seasonally wet areas, railroad reserves often with wet depressions or drains. IBRA Distribution: SWA Florabase records: 63	Low			
<i>Synaphea</i> sp. Serpentine (G.R. Brand 103)	Proteaceae	T	Critically Endangered	Habit: Erect shrub 0.3-0.6 m high and to 0.5 m wide. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Sand, loamy sand, clay-loam, clay soil. Flats, gentle slope to wetland, seasonally wet areas. IBRA Distribution: SWA Florabase records: 36	Low			

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Tetralia australiensis</i>	Cyperaceae	T	Vulnerable	<p>Habit: Rhizomatous, tufted perennial, grass-like or herb (sedge), to 1 m high.</p> <p>Flower colour: brown</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sand, sandy loam. Flats, well-drained areas.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 37</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Thelymitra dedmaniarum</i>	Orchidaceae	T	Endangered	<p>Habit: Tuberos, perennial, herb, to 0.8 m high.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Granite</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 4</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Thelymitra stellata</i>	Orchidaceae	T	Endangered	<p>Habit: Tuberos, perennial, herb, 0.15-0.25 m high.</p> <p>Flower colour: yellow & brown</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sand, gravel, lateritic loam.</p> <p>IBRA Distribution: GES, JAF, SWA</p> <p>Florabase records: 20</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Verticordia fimbriolepis</i> subsp. <i>fimbriolepis</i>	Myrtaceae	T	Endangered	Habit: Shrub, 0.3-0.7 m high. Flower colour: pink-white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Gravelly or clayey soils. Flats, road verges. IBRA Distribution: AVW, JAF Florabase records: 39	Moderate			
<i>Verticordia plumosa</i> var. <i>ananeotes</i>	Myrtaceae	T	Endangered	Habit: Erect, sparsely branched shrub, 0.3-0.5 m high. Flower colour: pink-purple/white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Sandy loam. Seasonally inundated plains. IBRA Distribution: JAF, SWA Florabase records: 23	Moderate			
<i>Andersonia</i> sp. <i>Saxatilis</i> (F. & J. Hort 3324)	Ericaceae	P1	-	Habit: Single-stemmed shrub to 0.6 m high. Flower colour: white-pink Flowering period (indicated in green): J F M A M J J A S O N D Soils: Dry, brown loam, clay over granite. Slope, outcrops, granite and laterite. IBRA Distribution: JAF Florabase records: 6	High	Dwellingup, D2 Cooke, Ce	Dwellingup, D2 Cooke, Ce	G

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Anthotium</i> sp. Darling Range (F. Hort & B. Hort 2431)	Goodeniaceae	P1	-	Habit: Prostrate, spreading perennial, herb, to 0.05 m high. Flower colour: pink/mauve/purple/blue Flowering period (indicated in green): J F M A M J J A S O N D Soils: Yellow, grey or brown clayey sand, loam. Slopes, low plains, drainage lines of swamp flats. IBRA Distribution: JAF Florabase records: 16	Low			
<i>Calytrix simplex</i> subsp. <i>simplex</i>	Myrtaceae	P1	-	Habit: Shrub, ca 0.2 m high. Flower colour: purple Flowering period (indicated in green): J F M A M J J A S O N D Soils: Grey clay loam soil, red-brown gravelly loam. Flats and slopes on laterite, swamp. IBRA Distribution: JAF, SWA Florabase records: 5	Moderate			
<i>Darwinia hortiorum</i>	Myrtaceae	P1	-	Habit: Erect to spreading, densely branched shrub to 0.7 m high and 0.8 m wide. Flower colour: reddish-brown & green & yellow-red Flowering period (indicated in green): J F M A M J J A S O N D Soils: Shallow granitic soils, loam or loam/clay associated with laterite. Granite outcrops and drainage lines to granite outcrops. IBRA Distribution: JAF Florabase records: 8	Low	Cooke, Ce		

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Hemigenia rigida</i>	Lamiaceae	P1	-	<p>Habit: Upright or spreading shrub, 0.1-0.6 (-1) m high.</p> <p>Flower colour: blue-purple/violet</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sandy soils, lateritic gravelly soils. Hillslopes, granite outcrops</p> <p>IBRA Distribution: AVW</p> <p>Florabase records: 4</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Hibbertia polyancistra</i>	Dilleniaceae	P1	-	<p>Habit: Erect shrub 0.3-0.45 (-0.6) m high.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Shallow soil over granite.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 8</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Levenhookia preissii</i>	Stylidiaceae	P1	-	<p>Habit: Annual (ephemeral), herb, 0.03-0.17 m high.</p> <p>Flower colour: pink-red</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Grey or black, peaty sand. Swamps.</p> <p>IBRA Distribution: SWA</p> <p>Florabase records: 14</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Paracaleana gracilicordata</i>	Orchidaceae	P1	-	Habit: Perennial, herb, to 0.07 m high. Flower colour: green-yellow-purple Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Growing on moss mats, granite. Outcrops. IBRA Distribution: JAF Florabase records: 8	J	F	M	A	M	J	J	A	S	O	N	D	High		Dwellingup, D2	G S
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Paracaleana granitica</i>	Orchidaceae	P1	-	Habit: Perennial, herb, to 0.07 m high. Flower colour: green-purple Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Growing on moss mats, granite. Outcrops. IBRA Distribution: JAF Florabase records: 7	J	F	M	A	M	J	J	A	S	O	N	D	High		Dwellingup, D2 Pindalup, Pn Murray 1, My1	G T D P
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Senecio gilbertii</i>	Asteraceae	P1	-	Habit: Erect, slender perennial, herb, to 1.5 m high. Flower colour: yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Peaty sand. Swamps, slopes IBRA Distribution: AVW, JAF Florabase records: 10	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Synaphea odocoileops</i>	Proteaceae	P1	-	Habit: Tufted, compact shrub, 0.2-0.5 m high. Flower colour: yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Brown-orange loam & sandy clay, granite. Swamps, winter-wet areas. IBRA Distribution: SWA Florabase records: 22	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Banksia recurvistylis</i>	Proteaceae	P2	-	Habit: Non-lignotuberous shrub to c. 2 m high and 3 m wide. Flower colour: pale yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Shallow, lateritic soils associated with granite outcrops. IBRA Distribution: JAF Florabase records: 7	J	F	M	A	M	J	J	A	S	O	N	D	High			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Bossiaea modesta</i>	Fabaceae	P2	-	Habit: Slender, trailing & twining shrub. Flower colour: yellow & red Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Soils derived from granite. Damp areas close to stream. IBRA Distribution: JAF, SWA Florabase records: 22	J	F	M	A	M	J	J	A	S	O	N	D	Low	Yarragil 2, Yg2		
J	F	M	A	M	J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Grevillea crowleyae</i>	Proteaceae	P2	-	Habit: Dense & spreading shrub, 0.5-1.5 m high. Flower colour: - Flowering period (indicated in green): J F M A M J J A S O N D Soils: Loam. IBRA Distribution: JAF Florabase records: 9	High			
<i>Grevillea manglesii</i> subsp. <i>ornithopoda</i>	Proteaceae	P2	-	Habit: Spreading, virgate shrub, 1-3 (-5) m high, up to 3 m wide. Flower colour: - Flowering period (indicated in green): J F M A M J J A S O N D Soils: Loam, loam over clay, sand, clay. Edge of river bank and creek, dunes IBRA Distribution: JAF, SWA Florabase records: 17	High		Dwellingup, D1	G
<i>Johnsonia pubescens</i> subsp. <i>cygnorum</i>	Hemerocallidaceae	P2	-	Habit: Tufted, perennial, herb, 0.15-0.25 m high. Flower colour: white-green Flowering period (indicated in green): J F M A M J J A S O N D Soils: Grey-white-yellow sand. Flats, seasonally-wet sites. IBRA Distribution: SWA Florabase records: 12	Low			

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Millotia tenuifolia</i> var. <i>laevis</i>	Asteraceae	P2	-	Habit: Ascending to erect annual, herb, 0.02-0.1 m high. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Granite or laterite soils. IBRA Distribution: AVW, JAF, SWA Florabase records: 13	Moderate	Dwellingup, D2		
<i>Tetralochea phoenix</i>	Elaeocarpaceae	P2	-	Habit: Few-branched shrub (subshrub), to 0.25 m high. Flower colour: dark pink-magenta Flowering period (indicated in green): J F M A M J J A S O N D Soils: Brown gravelly loam over granite. Mid to Upper slopes, near granite outcrops. IBRA Distribution: JAF Florabase records: 10	Moderate			
<i>Acacia drummondii</i> subsp. <i>affinis</i>	Fabaceae	P3	-	Habit: Erect shrub, 0.3-1 m high. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Lateritic gravelly soils. IBRA Distribution: AVW, JAF, SWA Florabase records: 37	Moderate			

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Acacia horridula</i>	Fabaceae	P3	-	Habit: Harsh, slender, single-stemmed shrub, 0.3-0.6 (-1) m high. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Gravelly soils over granite, sand. Rocky hillslopes. IBRA Distribution: JAF, SWA Florabase records: 33	Moderate	Darling Scarp, DS2 Dwellingup, D2		
<i>Acacia oncinophylla</i> subsp. <i>oncinophylla</i>	Fabaceae	P3	-	Habit: Shrub, 0.9-2.5 m high, 'minni-ritchi' bark, phyllodes mostly 8-13 cm long, 1-2 mm wide. Flower colour: yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Granitic soils IBRA Distribution: AVW, JAF, SWA Florabase records: 42	High			
<i>Andersonia</i> sp. Audax (F. Hort, B. Hort & J. Hort 3179)	Ericaceae	P3	-	Habit: Shrub, to 1.1 m high and 1.1 m wide. Flower colour: white-cream/mauve-pink Flowering period (indicated in green): J F M A M J J A S O N D Soils: Loam, clay, sand, gravel. Granite, slopes and drainage lines. IBRA Distribution: JAF Florabase records: 22	High	Dwellingup, D2 Yarragil 2, Yg2 Cooke, Ce	Cooke, Ce Dwellingup, D2 Swamp, S	G E P PL

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Byblis gigantea</i>	Byblidaceae	P3	-	<p>Habit: Small, branched perennial, herb (or sub shrub), to 0.45 m high.</p> <p>Flower colour: pink-purple/white</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sandy-peat swamps. Seasonally wet areas.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 40</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low	Yarragil 2, Yg2		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Cyathochaeta teretifolia</i>	Cyperaceae	P3	-	<p>Habit: Rhizomatous, clumped, robust perennial, grass-like or herb (sedge), to 2.0 m high, to 1.0 m wide.</p> <p>Flower colour: brown</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Grey sand, sandy clay. Swamps, creek edges.</p> <p>IBRA Distribution: JAF, SWA, WAR</p> <p>Florabase records: 39</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Grevillea manglesii</i> subsp. <i>dissectifolia</i>	Proteaceae	P3	-	<p>Habit: Spreading, virgate shrub, 1.5-3 (-5) m high, up to 33 m wide.</p> <p>Flower colour: white & red & brown</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Gravelly loam, moist. Roadsides.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 27</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate	Dwellingup, D1 Murray 1, My1 Pindalup, Pn		
J	F	M	A	M	J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Halgania corymbosa</i>	Boraginaceae	P3	-	Habit: Erect shrub, 0.35-1 m high. Flower colour: blue-purple Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Gravelly soils, soils over granite. IBRA Distribution: JAF, SWA Florabase records: 18	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Isopogon autumnalis</i>	Proteaceae	P3	-	Habit: Shrub 0.3-1 m high, commonly 0.5-1 m wide. Flower colour: pale yellow Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Sandy soils. IBRA Distribution: GES, JAF, SWA Florabase records: 59	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Lasiopetalum glutinosum</i> subsp. <i>glutinosum</i>	Malvaceae	P3	-	Habit: Shrub to 0.8 m high. Flower colour: pink-purple Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Lateritic gravel and clay, clay loam, sandy clay over granite. Slopes, granite outcrops. IBRA Distribution: AVW, JAF, SWA Florabase records: 48	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code													
<i>Lepyrodia heleocharoides</i>	Restionaceae	P3	-	<p>Habit: Rhizomatous, slender, tufted perennial, herb (sedge-like), 0.15-0.25 m high.</p> <p>Flower colour: -</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Moist peaty sand. Dry or seasonally inundated heath or woodland, swamps.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 20</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low				
J	F	M	A	M	J	J	A	S	O	N	D										
<i>Meionectes tenuifolia</i>	Haloragaceae	P3	-	<p>Habit: Annual semi-aquatic herb, to 0.35 m high.</p> <p>Flower colour: orange-red-brown, green</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td></td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Grey sand or grey-brown clay, shallow soils. Seasonally inundated flat, edge of swamp.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 24</p>	J	F	M	A	M		J	J	A	S	O	N	D	Low	Yarragil 1, Yg1		
J	F	M	A	M		J	J	A	S	O	N	D									

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Petrophile filifolia</i> subsp. <i>laxa</i>	Proteaceae	P3	-	Habit: Erect, spreading shrub, to 0.75 m high. Flower colour: cream Flowering period (indicated in green): J F M A M J J A S O N D Soils: White gritty sand, brown, red, yellow, white or grey sand, brown-yellow sandy clay. Winter-wet sites, flats, slopes, swamps, drainage lines. IBRA Distribution: JAF Florabase records: 18	Moderate	Yarragil 2, Yg2 Swamp, S		
<i>Pithocarpa corymbulosa</i>	Asteraceae	P3	-	Habit: Erect to scrambling perennial, herb, 0.5-1 m high. Flower colour: white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Gravelly or sandy loam. Amongst granite outcrops. IBRA Distribution: GES, JAF, SWA Florabase records: 22	Moderate	Murray 1, My1		
<i>Stackhousia</i> sp. Red-blotched corolla (A. Markey 911)	Celastraceae	P3	-	Habit: Erect herb or shrub, approximately 0.2 m high. Flower colour: cream-yellow Flowering period (indicated in green): J F M A M J J A S O N D Soils: Brown loamy sand, clayey sand over laterite, white sandy clay over granite, grey clay. Slopes. IBRA Distribution: AVW, GES, JAF Florabase records: 9	Moderate			

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Synaphea pandurata</i>	Proteaceae	P3	-	<p>Habit: Clumped shrub (subshrub), 0.2-0.55 m high.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Yellow-grey, yellow-brown, yellow-red sands and sandy loams, dark brown loam, laterite gravel, granite. In undulating areas.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 23</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Thysanotus anceps</i>	Asparagaceae	P3	-	<p>Habit: Rhizomatous, leafless perennial, herb, to 0.4 m high.</p> <p>Flower colour: purple</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: White or grey sand, lateritic gravel, laterite.</p> <p>IBRA Distribution: GES, JAF, SWA</p> <p>Florabase records: 17</p>	J	F	M	A	M	J	J	A	S	O	N	D	Moderate	Dwellingup, D1		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Acacia cuneifolia</i>	Fabaceae	P4	-	<p>Habit: Erect or straggly shrub, 1-3 m high.</p> <p>Flower colour: yellow</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sand, clay or loam over granite. Granite outcrops & hills, rocky watercourses.</p> <p>IBRA Distribution: AVW, JAF</p> <p>Florabase records: 41</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low	Cooke, Ce		
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Boronia tenuis</i>	Rutaceae	P4	-	Habit: Procumbent or erect & slender shrub, 0.1-0.5 m high. Flower colour: blue/pink-white Flowering period (indicated in green): <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Laterite, stony soils, granite. IBRA Distribution: JAF, SWA Florabase records: 45	J	F	M	A	M	J	J	A	S	O	N	D	High	Yarragil 1, Yg1 Murray 1, My1	Dwellingup, D2	PL
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Caladenia speciosa</i>	Orchidaceae	P4	-	Habit: Tuberos, perennial, herb, 0.35-0.6 m high. Flower colour: white-pink Flowering period (indicated in green): <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: White, grey or black sand. IBRA Distribution: JAF, SWA Florabase records: 59	J	F	M	A	M	J	J	A	S	O	N	D	Low	Cooke, Ce		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Chorizema ulotropis</i>	Fabaceae	P4	-	Habit: Sprawling, open, semi-prostrate shrub, to 0.45 m high. Flower colour: orange-yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Moist to dry soils, white sand with gravel, laterite, granite. Outcrops, winter damp to dry areas, flats. IBRA Distribution: ESP, JAF, MAL Florabase records: 24	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Drosera occidentalis</i>	Droseraceae	P4	-	<p>Habit: Fibrous-rooted, rosetted perennial, herb, to 0.025 m high.</p> <p>Flower colour: pink/white</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: White/black sand over yellow clay, yellow sand, moist brown/grey clay/sand, peaty sand, sandy clay. Damp flats, flood plain.</p> <p>IBRA Distribution: JAF, SWA</p> <p>Florabase records: 18</p>	J	F	M	A	M	J	J	A	S	O	N	D	Low	Pindalup, Pn Dwellingup, D2		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Grevillea pimeleoides</i>	Proteaceae	P4	-	<p>Habit: Non-lignotuberous shrub, 0.4-2.4 m high.</p> <p>Flower colour: yellow-orange</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Gravelly soils over granite. Rocky hillsides.</p> <p>IBRA Distribution: JAF</p> <p>Florabase records: 36</p>	J	F	M	A	M	J	J	A	S	O	N	D	High	Murray 1, My1 Dwellingup, D1 Dwellingup, D2		
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Hemigenia platyphylla</i>	Lamiaceae	P4	-	<p>Habit: Spreading shrub, 0.2-1.5 m high.</p> <p>Flower colour: blue-purple</p> <p>Flowering period (indicated in green):</p> <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> <p>Soils: Sandy & loamy soils. Granite rocks, slopes.</p> <p>IBRA Distribution: AVW, ESP, JAF, MAL</p> <p>Florabase records: 21</p>	J	F	M	A	M	J	J	A	S	O	N	D	High		Dwellingup, D1	PW
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code
<i>Lasiopetalum cardiophyllum</i>	Malvaceae	P4	-	Habit: Erect, multi-stemmed shrub, 0.2-0.5 m high. Flower colour: pink Flowering period (indicated in green): J F M A M J J A S O N D Soils: Lateritic gravelly soils, sandy clay. Flats, hillslopes. IBRA Distribution: AVW, JAF Florabase records: 34	Moderate			
<i>Parsonsia diaphanophleba</i>	Apocynaceae	P4	-	Habit: Woody climber, to 10 m high. Flower colour: white/cream & pink Flowering period (indicated in green): J F M A M J J A S O N D Soils: Alluvial soils. Along rivers. IBRA Distribution: JAF, SWA Florabase records: 28	Moderate	Murray 1, My1		
<i>Pimelea rara</i>	Thymelaeaceae	P4	-	Habit: Shrub, 0.2-0.35 m high. Flower colour: white Flowering period (indicated in green): J F M A M J J A S O N D Soils: Lateritic soils. IBRA Distribution: JAF Florabase records: 52	High	Dwellingup, D1 Yarragil 1, Yg1 Yarragil 2, Yg2 Dwellingup, D2	Yarragil 1, Yg1 Dwellingup, D2 Yarragil 2, Yg2	D ST S

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

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Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Senecio leucoglossus</i>	Asteraceae	P4	-	Habit: Erect annual, herb, to 1.3 m high. Flower colour: white Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Gravelly lateritic or granitic soils. Granite outcrops, slopes. IBRA Distribution: JAF, SWA, WAR Florabase records: 44	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Stylidium ireneae</i>	Stylidiaceae	P4	-	Habit: Lax perennial, herb, (0.06-) 0.1-0.28 m high. Flower colour: pink Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Sandy loam. Valleys near creek lines. IBRA Distribution: JAF, SWA, WAR Florabase records: 25	J	F	M	A	M	J	J	A	S	O	N	D	Moderate			
J	F	M	A	M	J	J	A	S	O	N	D									
<i>Stylidium longitubum</i>	Stylidiaceae	P4	-	Habit: Erect annual (ephemeral), herb, 0.05-0.12 m high. Flower colour: pink Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Sandy clay, clay. Seasonal wetlands. IBRA Distribution: GES, JAF, SWA Florabase records: 46	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX C: ASSESSMENT OF THREATENED AND PRIORITY FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: Refer to Appendix A for State (SCC; Department of Biodiversity, Conservation and Attractions 2017a) and Federal (FCC; EPBC Act) conservation code definitions. IBRA Distribution: AVW – Avon Wheatbelt; ESP – Esperance Plains; GES – Geraldton Sandplains; JAF – Jarrah Forest; MAL – Mallee; SWA – Swan Coastal Plain; WAR – Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	Family	SCC	FCC	Description and Habitat	Likelihood of Occurrence	Vegetation complex outside Occurrence	Vegetation complex Occurrence	SVT Code												
<i>Verreauxia verreauxii</i>	Goodeniaceae	P4	-	Habit: Perennial, herb, to 0.5 m high. Flower colour: yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: White/grey or yellow sand. Flats. IBRA Distribution: AVW, JAF Florabase records: 44	J	F	M	A	M	J	J	A	S	O	N	D	Low			
J	F	M	A	M	J	J	A	S	O	N	D									

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
<i>*Asparagus asparagoides</i>	Yes	Declared Pest - s22(2)	-	Exempt	No Control Category, Whole of State	Habit: Rhizomatous and tuberous, perennial, herb and climber, 1-5 m high. Flower colour: white Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Sand, loam, clay, granite. IBRA Distribution: AVW, COO, ESP, GES, JAF, MAL, SWA, WAR Florabase records: 78	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
<i>*Chrysanthemoides monilifera</i>	No	Declared Pest, Prohibited - s12	C1 Exclusion	Prohibited	Whole of State	Habit: Shrub, 0.8-3 m high. Flower colour: yellow Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Swampy loam, lateritic sandy clay. Coastal areas, roadsides, waste areas. IBRA Distribution: JAF Florabase records: 50	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
<i>*Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	Yes	Declared Pest, Prohibited - s12	C2 Eradication	Prohibited	Whole of State	Habit: Erect shrub, 0.8-3m high. Flower colour: yellow Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Red-brown loam, limestone rubble. Sandplains, coastal areas, roadsides & waste areas. IBRA Distribution: AVW, GES, JAF, SWA Florabase records: 47	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
* <i>Genista monspessulana</i>	Yes	Permitted - s11	-	-	-	Habit: Erect shrub, 1-5 m high, leaves trifoliate, petiolate, standard more or less glabrous. Flower colour: yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td></tr></table> Soils: Loam, lateritic sand, black peaty sand. Edging rivers and roadsides. IBRA Distribution: AVW, JAF, SWA, WAR Florabase records: 38	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Gomphocarpus fruticosus</i>	No	Declared Pest - s22(2)	C3 Management	-	Shire of Serpentine-Jarrahdale, Shire of Wandering	Habit: Erect perennial, herb or shrub, 0.5-1.5 m high. Flower colour: white/cream Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td></tr></table> Soils: Disturbed sites. IBRA Distribution: AVW, ESP, JAF, MAL, NUL, SWA Florabase records: 44	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Lantana camara</i>	Yes	Declared Pest, Prohibited - s12	C1 Exclusion	Prohibited	Whole of State	Habit: Scrambling, prickly shrub or climber, to 3(-8) m high. Flower colour: cream-yellow/pink-purple/orange-red Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td></tr></table> Soils: Sandy soils. Moist areas. IBRA Distribution: CAR, COO, DAL, GES, JAF, PIL, SWA, Florabase records: 35	J	F	M	A	M	J	J	A	S	O	N	D	Low
J	F	M	A	M	J	J	A	S	O	N	D								

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
* <i>Lycium ferocissimum</i>	Yes	Permitted - s11	-	-	-	Habit: Intricately branched, spiny shrub, 0.5-2.5(-4) m high. Flower colour: white-purple-blue Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Waste grounds. IBRA Distribution: AVW, CAR, COO, ESP, GAS, GES, HAM, MAL, NUL, SWA Florabase records: 50	J	F	M	A	M	J	J	A	S	O	N	D	Low
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Moraea flaccida</i>	No	Declared Pest - s22(2)	-	Exempt	No Control Category, Whole of State	Habit: Cormous, perennial, herb, to 0.75 m high. Flower colour: yellow & orange/yellow Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: White sand, grey sandy loam over limestone, laterite clay, gravel. Seasonally wet sites, along creeklines, hilltops, pasture and disturbed land. IBRA Distribution: AVW, ESP, JAF, MAL, SWA, WAR Florabase records: 84	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Rubus anglocandicans</i>	No	Declared Pest - s22(2)	C3 Management	Exempt	Whole of State	Habit: Scrambling, rampant, sprawling shrub, to 4 m high. Flower colour: pink/white Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Grey sand, red-brown gravelly loam, red clay loam, granite, limestone. Hillsides, along river banks and watercourses, in roadside drains. IBRA Distribution: JAF, SWA, WAR Florabase records: 98	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
<i>*Rubus fruticosus</i> aggregate	Yes	-	-	-	-	Habit: Perennial, semi-deciduous shrub. Flower colour: white-pink Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: - IBRA Distribution: - Florabase records: -	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
<i>*Rubus laudatus</i>	No	Declared Pest - s22(2)	C3 Management	Exempt	Whole of State	Habit: Decumbent shrub, to 3 m high. Flower colour: white Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Grey to black-grey sand, red-brown gravelly loam, granite. Low flats, along watercourses and streams, near swamps, roadsides. IBRA Distribution: ESP, JAF, SWA, WAR Florabase records: 62	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
<i>*Rubus ulmifolius</i>	No	Declared Pest - s22(2)	C3 Management	Exempt	Whole of State	Habit: Straggling perennial, herb or shrub, to 4 m high. Flower colour: pink/white/blue/purple Flowering period (indicated in green): <table border="1" style="display: inline-table; vertical-align: middle;"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Along creeks & drains. IBRA Distribution: JAF, SWA, WAR Florabase records: 45	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
* <i>Rubus ulmifolius</i> var. <i>ulmifolius</i>	No	Declared Pest - s22(2)	C3 Management	Exempt	Whole of State	Habit: Prickly perennial, herb or shrub, to 4 m high. Flower colour: pink, pale blue/mauve Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Slopes adjacent to drainage lines, around dams, near towns. IBRA Distribution: JAF, SWA, WAR Florabase records: 20	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Salix</i> spp. except <i>S. babylonica</i> , <i>S. x calodendron</i> & <i>S. x reichardtii</i>	Yes	-	-	-	-	Habit: Deciduous shrub or tree Flower colour: cream/yellow Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: - IBRA Distribution: - Florabase records: -	J	F	M	A	M	J	J	A	S	O	N	D	Low
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Salvinia molesta</i>	Yes	Declared Pest, Prohibited - s12	C2 Eradication	Prohibited	Whole of State	Habit: Rhizomatous, herb or (fern), 0.05-0.2 m high, floating aquatic; leaves in whorls of 3: 2 floating leaves and 1 submerged root-like water-leaf. Flower colour: - Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Still or slow-flowing fresh water ponds and streams. IBRA Distribution: GES, JAF, PIL, SWA, VIB, WAR Florabase records: 17	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								

APPENDIX D: ASSESSMENT OF INTRODUCED (WEED) FLORA POTENTIALLY PRESENT IN THE MYARA NORTH SURVEY AREA

Note: WONS = Weeds of National Significance (Department of Agriculture, Water and the Environment 2020e); WAOL = Western Australian Organism List (Department of Primary Industries and Regional Development 2020). IBRA Distribution: AVW – Avon Wheatbelt; CAR – Carnarvon; CEK – Central Kimberley; COO – Coolgardie; DAL – Dampierland; ESP – Esperance Plains; GAS – Gascoyne; GES – Geraldton Sandplains; HAM – Hampton; JAF – Jarrah Forest; MAL – Mallee; NUL – Nullarbor; PIL – Pilbara; SWA – Swan Coastal Plain; VIB – Victoria Bonaparte; WAR - Warren. Likelihood of occurrence in survey area is based on a Low, Moderate or High ranking.

Species	WONS	WAOL legal status	WAOL Control Category	WAOL Control Category	Declared areas	Description and Habitat	Likelihood of Occurrence												
* <i>Solanum elaeagnifolium</i>	Yes	Declared Pest - s22(2)	-	Exempt	No Control Category, Whole of State	Habit: Erect perennial, herb, to 1 m high. Flower colour: blue/purple/pink/white Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Gravelly, red-brown clay-loam. Roadside. IBRA Distribution: AVW, MAL, SWA Florabase records: 27	J	F	M	A	M	J	J	A	S	O	N	D	Low
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Tamarix aphylla</i>	Yes	Declared Pest - s22(2)	-	Exempt	No Control Category, Whole of State	Habit: Tree, to 12 m high. Flower colour: pink-white Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Along river banks. IBRA Distribution: AVW, CAR, CEK, GES, MAL, SWA Florabase records: 16	J	F	M	A	M	J	J	A	S	O	N	D	Low
J	F	M	A	M	J	J	A	S	O	N	D								
* <i>Zantedeschia aethiopica</i>	No	Declared Pest - s22(2)	-	Exempt	No Control Category, Whole of State	Habit: Rhizomatous (tuber-like), perennial, herb, to 1 m high. Flower colour: white Flowering period (indicated in green): <table border="1"> <tr> <td>J</td><td>F</td><td>M</td><td>A</td><td>M</td><td>J</td><td>J</td><td>A</td><td>S</td><td>O</td><td>N</td><td>D</td> </tr> </table> Soils: Loam, sand. Swamps, rarely uplands. IBRA Distribution: AVW, GES, JAF, SWA, Florabase records: 49	J	F	M	A	M	J	J	A	S	O	N	D	Moderate
J	F	M	A	M	J	J	A	S	O	N	D								

E1.

APPENDIX E: SUMMARY OF SITE-VEGETATION TYPES DEFINED PREVIOUSLY IN AND
NEAR THE MYARA NORTH SURVEY AREA

The site-vegetation types were initially defined and mapped by Havel (1975a, 297b) and have since been refined and expanded on extensive studies by Mattiske for various clients in the Northern Jarrah forest.

SVT Code	Description
A -	Open Woodland of <i>Melaleuca preissiana</i> with dense understorey of Myrtaceae species, <i>Hakea varia</i> and sedge species on swamp areas.
A/C -	Mosaic of A and C site-vegetation types.
AC -	Open Woodland of <i>Melaleuca preissiana</i> - <i>Banksia littoralis</i> with dense understorey of Myrtaceae species on swamps and creeklines.
AW -	Open woodland of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus marginata</i> – <i>Banksia littoralis</i> with low mixed understorey on sandy to loam soils on valley floors.
AW/AX -	Mosaic of AW and AX site-vegetation types.
AW/CW -	Mosaic of AW and CW site-vegetation types.
AX -	Open Woodland of <i>Eucalyptus rudis</i> – <i>Melaleuca preissiana</i> with dense understorey of mixed <i>Melaleuca</i> species on clay soils in swamps.
C -	Woodland of <i>Melaleuca</i> species - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines.
CW -	Woodland to Open Forest of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> - <i>Banksia littoralis</i> with dense <i>Taxandria linearifolia</i> and <i>Astartea scoparia</i> in understorey on creek-lines and water-courses.
D -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Babingtonia camphorosmae</i> and <i>Acacia extensa</i> on clay loams to gravelly clay-loams.
E -	Open Forest to Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Kingia australis</i> , <i>Mesomelaena tetragona</i> and <i>Babingtonia camphorosmae</i> on sandy gravels on lower slopes.
G -	Mosaic of Open Woodland of <i>Eucalyptus marginata</i> – <i>Corymbia calophylla</i> , mixed Proteaceae – Myrtaceae heath and Lithic Complex associated with granite outcrops.
J -	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> over low mixed understorey, including <i>Lyginia barbata</i> and <i>Patersonia</i> species on sandy soils on lower slopes.
P -	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Grevillea wilsonii</i> and <i>Adenanthos barbiger</i> and low shrubs, herbs and sedges on sandy gravels.
PS -	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> and <i>Grevillea wilsonii</i> on sandy gravel soils.
PW -	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Grevillea wilsonii</i> , <i>Adenanthos barbiger</i> , <i>Babingtonia camphorosmae</i> and <i>Hypocalymma angustifolium</i> on moister sandy gravels.

APPENDIX E: SUMMARY OF SITE VEGETATION TYPES DEFINED PREVIOUSLY IN AND NEAR THE MYARA NORTH SURVEY AREA

SVT Code	Description
Q -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus patens</i> on lower slopes with mixed understorey species, including <i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i> , <i>Acacia extensa</i> and <i>Phyllanthus calycinus</i> on seasonally moister loamy soils.
R -	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> on fringes of granite outcrops or shallow soils.
RG -	Open Woodland of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with patches of Heath of Proteaceae – Myrtaceae species on fringes of granite outcrops or shallow soils.
S -	Open Forest of <i>Eucalyptus marginata</i> - <i>Banksia grandis</i> – <i>Allocasuarina fraseriana</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Leucopogon capitellatus</i> and <i>Styphelia tenuiflora</i> on gravels and sandy-gravels.
SP -	Open Forest of <i>Allocasuarina fraseriana</i> - <i>Eucalyptus marginata</i> - <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> and <i>Leucopogon capitellatus</i> on sandy-gravels to gravelly soils.
ST -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon capitellatus</i> , <i>Leucopogon verticillatus</i> , <i>Lasiopetalum floribundum</i> and <i>Styphelia tenuiflora</i> on sandy-gravelly soils.
SW -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Banksia grandis</i> with scattered understorey, including <i>Adenanthos barbiger</i> , <i>Hypocalymma angustifolium</i> and <i>Styphelia tenuiflora</i> on seasonally moister sandy-gravelly soils.
T -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly soils.
TS -	Open Forest of <i>Eucalyptus marginata</i> - <i>Corymbia calophylla</i> – <i>Banksia grandis</i> with scattered understorey, including <i>Leucopogon verticillatus</i> , <i>Pteridium esculentum</i> , <i>Clematis pubescens</i> and <i>Bossiaea aquifolium</i> subsp. <i>aquifolium</i> on sandy-loam gravelly to gravelly soils.
W -	Open Forest of <i>Eucalyptus marginata</i> - <i>Eucalyptus patens</i> – <i>Corymbia calophylla</i> on lower slopes with mixed low understorey species, including <i>Acacia extensa</i> and <i>Hypocalymma angustifolium</i> on seasonally moister sandy-loam gravelly soils.
WA -	Open woodland of <i>Eucalyptus patens</i> - <i>Corymbia calophylla</i> – <i>Eucalyptus marginata</i> – <i>Banksia littoralis</i> including <i>Hypocalymma angustifolium</i> and range of <i>Myrtaceae</i> species on sandy loam lower slopes.

F1.

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
ADIANTACEAE	<i>Adiantum aethiopicum</i>	1				
	<i>Cheilanthes austrotenuifolia</i>	1				
	<i>Cheilanthes sieberi</i>	1				
AMARANTHACEAE	<i>Ptilotus drummondii</i>	1		1		
	<i>Ptilotus drummondii</i> var. <i>drummondii</i>		1			
	<i>Ptilotus manglesii</i>	1	1		1	1
ANARTHRIACEAE	<i>Lyginia barbata</i>	1				
	<i>Lyginia imberbis</i>	1				
APIACEAE	<i>Centella asiatica</i>	1		1		
	<i>Daucus glochidiatus</i>			1	1	
	<i>Hydrocotyle callicarpa</i>	1		1	1	
	<i>Pentapeltis peltigera</i>	1	1	1	1	1
	<i>Platysace compressa</i>	1	1	1	1	1
	<i>Platysace filiformis</i>			1		
	<i>Platysace tenuissima</i>	1		1		
	<i>Trachymene pilosa</i>	1	1	1	1	1
	<i>Xanthosia atkinsoniana</i>	1	1	1	1	1
	<i>Xanthosia candida</i>	1	1	1	1	1
	<i>Xanthosia ciliata</i>	1		1	1	
	<i>Xanthosia huegelii</i>	1	1	1	1	1
	<i>Xanthosia singuliflora</i>	1		1		
	<i>Xanthosia tasmanica</i>	1				
	<i>Xanthosia</i> sp.	1				
APOCYNACEAE	* <i>Gomphocarpus fruticosus</i>	1				
ASPARAGACEAE	<i>Chamaescilla corymbosa</i>	1	1	1	1	1
	<i>Dichopogon capillipes</i>	1			1	
	<i>Laxmannia sessiliflora</i>	1				
	<i>Laxmannia sessiliflora</i> subsp. <i>australis</i>	1				
	<i>Laxmannia squarrosa</i>	1				
	<i>Laxmannia</i> sp.	1				
	<i>Lomandra brittanii</i>	1			1	1
	<i>Lomandra caespitosa</i>	1		1	1	1
	<i>Lomandra drummondii</i>	1	1	1	1	1
	<i>Lomandra effusa</i>	1				
	<i>Lomandra hermaphrodita</i>	1	1	1	1	1
	<i>Lomandra integra</i>	1			1	1
	<i>Lomandra micrantha</i>	1	1		1	1
	<i>Lomandra micrantha</i> subsp. <i>micrantha</i>	1				
	<i>Lomandra nigricans</i>	1	1		1	1
	<i>Lomandra odora</i>	1			1	1
	<i>Lomandra preissii</i>	1	1		1	1
	<i>Lomandra purpurea</i>	1		1	1	1
	<i>Lomandra sericea</i>	1			1	
	<i>Lomandra sonderi</i>	1	1	1	1	1
	<i>Lomandra spartea</i>	1	1	1	1	1
	<i>Lomandra suaveolens</i>	1				
	<i>Lomandra</i> sp.	1	1	1	1	
	<i>Sowerbaea laxiflora</i>	1			1	
	P3 <i>Thysanotus anceps</i>				1	
	<i>Thysanotus dichotomus</i>	1	1	1	1	1
	<i>Thysanotus fastigiatus</i>	1	1	1	1	
	<i>Thysanotus gracilis</i>				1	
	<i>Thysanotus manglesianus</i>	1	1		1	
	<i>Thysanotus multiflorus</i>	1	1	1	1	1
<i>Thysanotus patersonii</i>	1				1	
<i>Thysanotus scaber</i>	1					
<i>Thysanotus sparteus</i>					1	

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
ASPARAGACEAE (continued)	<i>Thysanotus tenellus</i>				1	
	<i>Thysanotus thyrsoides</i>	1	1	1	1	1
	<i>Thysanotus</i> sp.	1		1	1	
	Asparagaceae sp.	1				
ASPHODELACEAE	<i>Bulbine semibarbata</i>				1	
ASTERACEAE	<i>Asterolasia pallida</i>	1				
	<i>Craspedia variabilis</i>	1	1			
	* <i>Erigeron</i> sp.	1		1		
	* <i>Erigeron sumatrensis</i>				1	1
	<i>Euchiton sphaericus</i>				1	1
	<i>Hyalosperma cotula</i>	1				
	* <i>Hypochaeris glabra</i>	1		1	1	1
	<i>Lagenophora huegelii</i>	1	1	1	1	1
	<i>Millotia tenuifolia</i>	1			1	1
	<i>Olearia paucidentata</i>	1				
	<i>Podolepis gracilis</i>			1		
	<i>Panaetia lessonii</i>	1		1		
	<i>Podolepis</i> sp.	1		1		
	<i>Podotheca angustifolia</i>	1				
	<i>Podotheca gnaphalioides</i>	1				
	<i>Podotheca</i> sp.	1				
	<i>Pseudognaphalium luteoalbum</i>	1			1	1
	<i>Pterochaeta paniculata</i>	1			1	
	<i>Quinetia urvillei</i>	1		1		
	<i>Senecio diaschides</i>	1		1	1	1
	<i>Senecio hispidulus</i>	1		1	1	1
	<i>Senecio leucoglossus</i> (P4)		1	1	1	1
	<i>Senecio quadridentatus</i>	1		1	1	1
	<i>Senecio</i> sp.	1		1		
	<i>Siloxerus humifusus</i>	1		1		
	<i>Siloxerus multiflorus</i>	1				
	* <i>Sonchus oleraceus</i>				1	1
	<i>Trichocline spathulata</i>	1	1	1	1	1
	* <i>Ursinia anthemoides</i>	1				
	* Asteraceae sp.	1	1			
BORYACEAE	<i>Borya sphaerocephala</i>	1				
CAMPANULACEAE	<i>Isotoma hypocrateriformis</i>	1			1	1
	<i>Lobelia gibbosa</i>			1	1	
	<i>Wahlenbergia preissii</i>					1
CASUARINACEAE	<i>Allocasuarina fraseriana</i>	1	1	1	1	1
	<i>Allocasuarina humilis</i>	1				
	<i>Allocasuarina microstachya</i>	1				
CELASTRACEAE	<i>Stackhousia monogyna</i>	1	1	1		1
	<i>Tripterococcus brunonis</i>	1	1	1		1
CENTROLEPIDACEAE	<i>Aphelia cyperoides</i>			1		1
	<i>Centrolepis aristata</i>	1		1	1	1
	<i>Centrolepis drummondiana</i>			1		
COLCHICACEAE	<i>Burchardia congesta</i>	1	1		1	1
	<i>Burchardia multiflora</i>	1				
	<i>Burchardia</i> sp.	1				
	<i>Wurmbea dioica</i>	1			1	
	<i>Wurmbea</i> sp.	1				
CUPRESSACEAE	<i>Callitris pyramidalis</i>	1				

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots	
CYPERACEAE	<i>Baumea juncea</i>			1			
	<i>Baumea vaginalis</i>	1					
	<i>Caustis dioica</i>	1				1	
	<i>Chorizandra enodis</i>	1					
	<i>Cyathochaeta avenacea</i>	1	1	1	1	1	
	* <i>Cyperus rotundus</i>			1			
	<i>Gahnia aristata</i>	1					
	<i>Gahnia decomposita</i>	1		1		1	
	<i>Isolepis cernua</i>	1					
	<i>Isolepis marginata</i>	1				1	
	<i>Lepidosperma asperatum</i>	1					
	<i>Lepidosperma gracile</i>	1		1			
	<i>Lepidosperma leptostachyum</i>	1		1	1		
	<i>Lepidosperma longitudinale</i>	1				1	
	<i>Lepidosperma pubisquamum</i>	1				1	
	<i>Lepidosperma squamatum</i>	1		1	1	1	
	<i>Lepidosperma tenue</i>	1		1	1	1	
	<i>Lepidosperma tetraquetrum</i>	1		1			
	<i>Lepidosperma</i> sp.	1	1			1	
	<i>Lepidosperma</i> sp. (flat)	1					
	<i>Lepidosperma</i> sp. (terete)	1					
	<i>Lepidosperma</i> sp.1					1	
	<i>Mesomelaena graciliceps</i>	1			1	1	
	<i>Mesomelaena stygia</i>					1	
	<i>Mesomelaena tetragona</i>	1		1	1	1	
	<i>Schoenus clandestinus</i>	1					
	<i>Schoenus discifer</i>	1					
	<i>Schoenus</i> sp.	1					
	<i>Tetraria capillaris</i>				1	1	
	<i>Tetraria octandra</i>	1		1	1	1	
	<i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)	1	1			1	
	Cyperaceae sp.	1	1				
	DASYPOGONACEAE	<i>Dasypogon bromeliifolius</i>	1				
		<i>Kingia australis</i>	1				
DENNSTAEDTIACEAE	<i>Pteridium esculentum</i>	1	1	1	1	1	
DILLENIAEAE	<i>Hibbertia acerosa</i>	1	1	1		1	
	<i>Hibbertia amplexicaulis</i>	1	1	1	1	1	
	<i>Hibbertia commutata</i>	1	1	1	1	1	
	<i>Hibbertia commutata</i> (seedling)					1	
	<i>Hibbertia diamesogenos</i>			1			
	<i>Hibbertia huegelii</i>	1	1	1	1	1	
	<i>Hibbertia hypericoides</i>	1	1	1		1	
	<i>Hibbertia lasiopus</i>	1		1			
	<i>Hibbertia lineata</i>					1	
	<i>Hibbertia ovata</i>	1		1			
	<i>Hibbertia perfoliata</i>	1	1	1		1	
	<i>Hibbertia pilosa</i>	1					
	<i>Hibbertia quadricolor</i>	1		1		1	
	<i>Hibbertia racemosa</i>			1			
	<i>Hibbertia silvestris</i>	1					
	<i>Hibbertia stellaris</i>	1					
<i>Hibbertia striata</i>					1		
<i>Hibbertia</i> sp.	1	1		1	1		
DROSERACEAE	<i>Drosera bulbosa</i>				1		
	<i>Drosera erythrorhiza</i>	1		1	1	1	
	<i>Drosera glanduligera</i>	1					
	<i>Drosera macrantha</i>	1		1	1		
	<i>Drosera microphylla</i>				1		
	<i>Drosera pallida</i>			1	1		

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
DROSERACEAE (continued)	<i>Drosera platystigma</i>			1	1	
	<i>Drosera pulchella</i>			1		1
	<i>Drosera stolonifera</i>	1		1	1	1
	<i>Drosera</i> sp.	1	1	1		1
	<i>Drosera</i> sp. (climbing)	1				1
	<i>Drosera</i> sp. 1	1				1
	<i>Drosera</i> sp. 2	1				1
ELAEOCARPACEAE	<i>Platytheca galioides</i>	1				
	<i>Tetradlea hirsuta</i>	1	1	1	1	1
	<i>Tetradlea</i> sp.	1				
ERICACEAE	<i>Andersonia aristata</i>	1				
	<i>Andersonia latiflora</i>			1		
	<i>Andersonia lehmanniana</i>	1				1
	<i>Andersonia lehmanniana</i> subsp. <i>lehmanniana</i>	1				
	<i>Leucopogon australis</i>	1	1			
	<i>Leucopogon capitellatus</i>	1	1	1	1	1
	<i>Leucopogon glabellus</i>	1				
	<i>Leucopogon hirsutus</i>			1		
	<i>Leucopogon parviflorus</i>					1
	<i>Leucopogon sprengelioides</i>					1
	<i>Leucopogon tenuis</i>	1				
	<i>Leucopogon verticillatus</i>	1	1	1	1	1
	<i>Leucopogon</i> sp.	1				
	<i>Lysinema ciliatum</i>	1				
	<i>Lysinema elegans</i>	1				
	<i>Lysinema pentapetalum</i>	1				
	<i>Styphelia discolor</i>	1	1	1	1	1
	<i>Styphelia epacridis</i>	1				
	<i>Styphelia erectifolia</i>	1				
	<i>Styphelia erubescens</i>				1	
	<i>Styphelia nitens</i>	1	1	1	1	1
	<i>Styphelia pallida</i>	1		1	1	1
	<i>Styphelia propinqua</i>	1	1	1	1	1
	<i>Styphelia stricta</i>	1				
	<i>Styphelia tenuiflora</i>	1	1	1	1	1
	<i>Styphelia</i> sp.	1				
	Ericaceae sp.	1				
EUPHORBIACEAE	<i>Amperea simulans</i>	1				
	<i>Monotaxis grandiflora</i>			1	1	
	<i>Monotaxis grandiflora</i> var. <i>grandiflora</i>					1
	<i>Monotaxis occidentalis</i>	1		1	1	
	<i>Stachystemon vermicularis</i>			1		
<i>Stachystemon virgatus</i>	1					
FABACEAE	<i>Acacia alata</i>	1		1	1	1
	<i>Acacia alata</i> var. <i>alata</i>	1				
	<i>Acacia applanata</i>	1				1
	<i>Acacia barbinervis</i>	1	1	1	1	1
	<i>Acacia barbinervis</i> subsp. <i>barbinervis</i>	1				
	<i>Acacia browniana</i>	1		1		
	<i>Acacia browniana</i> var. <i>endlicheri</i>	1				
	<i>Acacia browniana</i> var. <i>intermedia</i>	1				
	<i>Acacia browniana</i> var. <i>obscura</i>	1				
	<i>Acacia celastrifolia</i>	1			1	
	<i>Acacia divergens</i>	1		1		1
	<i>Acacia drummondii</i>		1	1	1	1
	<i>Acacia drummondii</i> subsp. <i>candolleana</i>	1				1
	<i>Acacia ephedroides</i>	1				
	<i>Acacia extensa</i>	1	1	1		1
<i>Acacia gemina</i>	1					

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
FABACEAE (continued)	<i>Acacia horridula</i> (P3)	1				
	<i>Acacia incrassata</i>			1		
	<i>Acacia incurva</i>	1				
	<i>Acacia lateriticola</i>	1	1	1	1	1
	* <i>Acacia longifolia</i>	1				
	* <i>Acacia longifolia</i> subsp. <i>longifolia</i>	1				
	<i>Acacia multispicata</i>	1				
	<i>Acacia nervosa</i>	1	1			
	<i>Acacia obovata</i>	1				
	<i>Acacia oncinophylla</i>	1				
	<i>Acacia preissiana</i>	1		1		
	<i>Acacia pulchella</i>	1	1	1	1	1
	<i>Acacia pulchella</i> var. <i>glaberrima</i>	1				
	<i>Acacia pulchella</i> var. <i>pulchella</i>	1				
	<i>Acacia saligna</i>	1		1		1
	<i>Acacia stenoptera</i>	1				1
	<i>Acacia trigonophylla</i>	1				
	<i>Acacia urophylla</i>	1	1	1	1	1
	<i>Acacia varia</i>			1	1	
	<i>Acacia willdenowiana</i>	1		1	1	
	<i>Acacia</i> sp.	1	1	1		
	<i>Aotus cordifolia</i>					1
	<i>Aotus gracillima</i>	1				
	<i>Bossiaea aquifolium</i>	1	1	1	1	1
	<i>Bossiaea eriocarpa</i>	1		1		
	<i>Bossiaea ornata</i>	1	1	1	1	1
	<i>Bossiaea pulchella</i>	1				
	<i>Bossiaea spinescens</i>					1
	<i>Callistachys lanceolata</i>	1				
	<i>Chorizema cordatum</i>	1	1	1		1
	<i>Chorizema dicksonii</i>	1				
	<i>Chorizema ilicifolium</i>			1		
	<i>Chorizema rhombeum</i>			1		
	<i>Daviesia cordata</i>	1				
	<i>Daviesia decurrens</i>	1	1	1	1	1
	<i>Daviesia horrida</i>	1		1		1
	<i>Daviesia incrassata</i>	1				
	<i>Daviesia physodes</i>			1		
	<i>Daviesia preissii</i>	1	1			
	<i>Daviesia rhombifolia</i>	1	1			
	<i>Daviesia</i> sp.	1				
	<i>Dillwynia laxiflora</i>	1				
	<i>Gastrolobium bilobum</i>	1				
	<i>Gastrolobium calycinum</i>	1				
	<i>Gastrolobium ebracteolatum</i>			1		
	<i>Gastrolobium retusum</i>	1				
	<i>Gastrolobium spinosum</i>	1				1
	<i>Gastrolobium villosum</i>	1	1			1
	<i>Gastrolobium</i> sp.	1				
	<i>Gompholobium capitatum</i>	1		1		
	<i>Gompholobium cyaninum</i>	1	1	1		
	<i>Gompholobium knightianum</i>	1	1	1	1	1
	<i>Gompholobium marginatum</i>		1	1	1	1
	<i>Gompholobium polymorphum</i>	1	1	1	1	1
	<i>Gompholobium preissii</i>	1	1	1	1	1
	<i>Gompholobium scabrum</i>	1				
	<i>Gompholobium tomentosum</i>	1				1
	<i>Gompholobium</i> sp.	1		1		
	<i>Gompholobium</i> sp.1					1
	<i>Hardenbergia comptoniana</i>	1				
	<i>Hovea chorizemifolia</i>	1	1	1	1	1
	<i>Hovea pungens</i>	1				

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
FABACEAE (continued)	<i>Hovea trisperma</i>	1		1	1	1
	<i>Hovea trisperma</i> var. <i>grandiflora</i>	1				
	<i>Hovea</i> sp.	1				
	<i>Isotropis cuneifolia</i>					1
	<i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>	1				
	<i>Jacksonia alata</i>					1
	<i>Jacksonia furcellata</i>	1				
	<i>Kennedia coccinea</i>	1	1	1	1	1
	<i>Kennedia prostrata</i>	1	1	1		1
	<i>Labichea punctata</i>	1	1	1	1	1
	<i>Mirbelia dilatata</i>	1		1	1	1
	<i>Paraserianthes lophantha</i>	1		1		
	<i>Sphaerolobium linophyllum</i>				1	
	<i>Sphaerolobium macranthum</i>					1
	<i>Sphaerolobium medium</i>	1		1	1	1
	<i>Sphaerolobium</i> sp.					1
	* <i>Trifolium dubium</i>				1	
	<i>Viminaria juncea</i>	1		1		
	Fabaceae sp.	1				
	GENTIANACEAE	* <i>Centaurium erythraea</i>			1	1
GERANIACEAE	<i>Pelargonium littorale</i>	1				
GOODENIACEAE	<i>Dampiera alata</i>	1			1	
	<i>Dampiera hederacea</i>				1	
	<i>Dampiera linearis</i>	1	1		1	1
	<i>Dampiera pedunculata</i>				1	
	<i>Dampiera</i> sp.	1				
	<i>Goodenia micrantha</i>			1		
	<i>Goodenia pulchella</i>	1				
	<i>Goodenia trinervis</i>	1				
	<i>Lechenaultia biloba</i>	1	1	1	1	1
	<i>Scaevola calliptera</i>	1	1	1	1	1
	<i>Scaevola pilosa</i>				1	1
	Goodeniaceae sp.	1				
HAEMODORACEAE	<i>Anigozanthos manglesii</i>	1				1
	<i>Anigozanthos</i> sp.	1				
	<i>Conostylis ?caricina</i> subsp. <i>caricina</i>	1				
	<i>Conostylis aculeata</i>	1			1	
	<i>Conostylis pusilla</i>	1				1
	<i>Conostylis serrulata</i>	1		1	1	1
	<i>Conostylis setigera</i>	1	1	1		1
	<i>Conostylis setigera</i> subsp. <i>setigera</i>	1				
	<i>Conostylis setosa</i>	1	1	1	1	1
	<i>Conostylis</i> sp.	1				
	<i>Haemodorum laxum</i>	1		1	1	1
	<i>Haemodorum spicatum</i>	1			1	
	<i>Haemodorum</i> sp.	1		1		1
	<i>Haemodorum</i> sp. 1					1
	<i>Haemodorum</i> sp. 2					1
Haemodoraceae sp.		1				
HALORAGACEAE	<i>Glischrocaryon aureum</i>	1		1	1	1
	<i>Gonocarpus benthamii</i>			1		
	<i>Gonocarpus cordiger</i>	1	1			
	<i>Gonocarpus diffusus</i>				1	
	<i>Gonocarpus</i> sp.		1			
HEMEROCALLIDACEAE	<i>Agrostocrinum hirsutum</i>	1				
	<i>Agrostocrinum scabrum</i>		1		1	1

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APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
HEMEROCALLIDACEAE (continued)	<i>Caesia micrantha</i>	1				
	<i>Corynotheca micrantha</i>	1				
	<i>Dianella revoluta</i>	1	1		1	1
	<i>Johnsonia lupulina</i>	1				
	<i>Stypandra glauca</i>	1				
	<i>Tribonanthes australis</i>	1				
	<i>Tricoryne elatior</i>	1		1	1	1
	<i>Tricoryne humilis</i>	1			1	1
	<i>Tricoryne</i> sp.	1				
HYPOXIDACEAE	<i>Pauridia</i> sp.	1				
IRIDACEAE	<i>Orthrosanthus laxus</i>	1				
	<i>Patersonia babianoides</i>			1	1	1
	<i>Patersonia juncea</i>	1				1
	<i>Patersonia occidentalis</i>	1	1	1		1
	<i>Patersonia pygmaea</i>	1		1	1	1
	<i>Patersonia rudis</i>	1		1	1	1
	<i>Patersonia</i> sp.	1				
	* <i>Watsonia meriana</i>	1				
	Iridaceae sp.	1				
JUNCACEAE	* <i>Juncus bufonius</i>				1	
	<i>Juncus planifolius</i>			1		
	<i>Juncus subsecundus</i>			1		
	<i>Juncus</i> sp.	1				
LAMIACEAE	<i>Hemiandra pungens</i>	1			1	1
	<i>Hemiandra</i> sp.	1				
	<i>Hemigenia incana</i>	1				
	<i>Hemigenia pritzelii</i>	1	1	1	1	
	<i>Hemigenia viscida</i>	1				
	<i>Hemigenia</i> sp.	1				
	* <i>Lavandula stoechas</i>	1				
LAURACEAE	<i>Cassytha glabella</i>	1		1	1	
	<i>Cassytha racemosa</i>			1		
	<i>Cassytha</i> sp.	1				1
LENTIBULARIACEAE	<i>Utricularia multifida</i>	1	1		1	
LINDSAEACEAE	<i>Lindsaea linearis</i>	1				1
LOGANIACEAE	<i>Orianthera serpyllifolia</i>	1		1		
	<i>Phyllangium paradoxum</i>			1	1	
LORANTHACEAE	<i>Nuytsia floribunda</i>	1				
MALVACEAE	<i>Lasiopetalum floribundum</i>	1	1	1	1	1
	<i>Lasiopetalum glabratum</i>	1	1	1	1	1
	<i>Lasiopetalum glutinosum</i>				1	
	<i>Lasiopetalum</i> sp.	1				
	<i>Thomasia foliosa</i>	1				
	<i>Thomasia paniculata</i>	1		1		1
	<i>Thomasia pauciflora</i>			1		
MENYANTHACEAE	<i>Liparophyllum capitatum</i>				1	
MYRTACEAE	<i>Astartea scoparia</i>	1		1		1
	<i>Babingtonia camphorosmae</i>	1				1
	<i>Calothamnus lateralis</i>	1				
	<i>Calothamnus quadrifidus</i>	1			1	
	<i>Calothamnus rupestris</i>	1				
	<i>Calothamnus sanguineus</i>	1				

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FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
MYRTACEAE (continued)	<i>Calothamnus</i> sp.					1
	<i>Calytrix depressa</i>	1				
	<i>Calytrix flavescens</i>	1				
	<i>Calytrix variabilis</i>	1				
	<i>Calytrix</i> sp.	1				
	<i>Corymbia calophylla</i>	1	1	1	1	1
	<i>Corymbia calophylla</i> (seedling)					1
	^ <i>Corymbia maculata</i>	1				
	<i>Darwinia citriodora</i>	1				
	^ <i>Eucalyptus cypellocarpa</i>	1				
	<i>Eucalyptus drummondii</i>	1				
	<i>Eucalyptus marginata</i>	1	1	1	1	1
	<i>Eucalyptus marginata</i> (seedling)					1
	<i>Eucalyptus megacarpa</i>	1		1		
	<i>Eucalyptus patens</i>	1		1		1
	<i>Eucalyptus patens</i> (seedling)					1
	<i>Eucalyptus rudis</i>	1		1		
	<i>Eucalyptus wandoo</i>	1				
	<i>Eucalyptus</i> sp.	1	1	1		
	<i>Hypocalymma angustifolium</i>	1	1	1	1	1
	<i>Hypocalymma cordifolium</i>	1		1		
	<i>Hypocalymma robustum</i>	1				
	<i>Kunzea glabrescens</i>					1
	<i>Kunzea micrantha</i>	1				
	<i>Kunzea micrantha</i> subsp. <i>micrantha</i>	1				
	<i>Kunzea pulchella</i>	1				
	<i>Kunzea recurva</i>	1				1
	<i>Kunzea</i> sp.	1				
	<i>Leptospermum erubescens</i>	1	1			1
	* <i>Leptospermum laevigatum</i>	1				
	* <i>Melaleuca armillaris</i> subsp. <i>armillaris</i>	1				
	<i>Melaleuca incana</i>			1		
	<i>Melaleuca incana</i> subsp. <i>incana</i>	1				
	<i>Melaleuca lateritia</i>	1				
	<i>Melaleuca parviceps</i>	1				1
	<i>Melaleuca pauciflora</i>	1				
	<i>Melaleuca preissiana</i>	1		1		1
	<i>Melaleuca rhapsiophylla</i>	1				
	<i>Melaleuca trichophylla</i>	1				
	<i>Melaleuca viminea</i>	1				1
	<i>Melaleuca viminea</i> (seedling)					1
	<i>Melaleuca</i> sp.	1				
	<i>Pericalymma ellipticum</i>	1	1	1		1
	<i>Taxandria linearifolia</i>	1		1		1
	<i>Verticordia densiflora</i>	1				
	<i>Verticordia densiflora</i> var. <i>densiflora</i>	1				
	<i>Verticordia pennigera</i>	1				
	<i>Verticordia plumosa</i>	1				0
	<i>Verticordia plumosa</i> var. <i>plumosa</i>	1				
	<i>Verticordia</i> sp.	1				
	Myrtaceae sp.	1				
OLACACEAE	<i>Olax benthamiana</i>			1		
ORCHIDACEAE	<i>Caladenia flava</i>	1		1	1	1
	<i>Caladenia macrostylis</i>			1	1	
	<i>Caladenia reptans</i>	1		1	1	
	<i>Caladenia reptans</i> subsp. <i>reptans</i>	1				
	<i>Caladenia</i> sp.	1		1		1
	<i>Caladenia</i> sp. 1					1
	<i>Cryptostylis ovata</i>			1	1	
	<i>Cryptostylis</i> sp.	1				
	<i>Cyanicula sericea</i>	1		1	1	

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
ORCHIDACEAE (continued)	<i>Cyrtostylis robusta</i>			1	1	
	* <i>Disa bracteata</i>			1	1	
	<i>Diuris longifolia</i>	1		1	1	
	<i>Diuris</i> sp.	1				
	<i>Elythranthera brunonis</i>	1		1		1
	<i>Eriochilus dilatatus</i>			1	1	
	<i>Eriochilus scaber</i>			1		
	<i>Eriochilus tenuis</i>			1		
	<i>Leporella fimbriata</i>			1	1	
	<i>Lyperanthus serratus</i>			1		
	<i>Microtis media</i>			1		
	<i>Pheladenia deformis</i>	1		1		
	<i>Prasophyllum brownii</i>			1		
	<i>Prasophyllum elatum</i>				1	
	<i>Prasophyllum</i> sp.	1				1
	<i>Prasophyllum</i> sp.1					1
	<i>Pterostylis barbata</i>	1			1	
	<i>Pterostylis pyramidalis</i>			1	1	
	<i>Pterostylis recurva</i>	1		1	1	
	<i>Pterostylis vittata</i>			1	1	
	<i>Pterostylis</i> sp.	1				1
	<i>Pterostylis</i> sp. 1					1
	<i>Pyrorchis nigricans</i>	1		1	1	
	<i>Thelymitra antennifera</i>	1		1		
	<i>Thelymitra crinita</i>	1		1	1	1
	<i>Thelymitra macrophylla</i>			1	1	
	<i>Thelymitra</i> sp.	1	1	1		1
	Orchidaceae sp.	1	1			1
	Orchidaceae sp. 1	1				1
	Orchidaceae sp. 2	1				1
OROBANCHACEAE	* <i>Parentucellia latifolia</i>	1				
OXALIDACEAE	* <i>Oxalis compressa</i>			1		
	* <i>Oxalis corniculata</i>			1	1	
	* <i>Oxalis pes-caprae</i>	1				
	* <i>Oxalis</i> sp.	1				
PHILYDRACEAE	<i>Philydrella drummondii</i>					1
	<i>Philydrella pygmaea</i>			1		
PHYLLANTHACEAE	<i>Phyllanthus calycinus</i>	1	1	1	1	1
	<i>Poranthera microphylla</i>	1		1	1	1
PINACEAE	* <i>Pinus pinaster</i>	1				
PITTOSPORACEAE	<i>Billardiera floribunda</i>			1	1	
	<i>Billardiera fraseri</i>			1	1	
	<i>Billardiera fusiformis</i>	1		1	1	1
	<i>Billardiera heterophylla</i>	1				
	<i>Billardiera variifolia</i>			1	1	
	<i>Billardiera</i> sp.	1				
	<i>Billardiera</i> sp.1					1
	<i>Marianthus drummondianus</i>	1	1	1		
<i>Marianthus</i> sp.	1					
PLANTAGINACEAE	* <i>Plantago lanceolata</i>				1	
POACEAE	* <i>Aira caryophyllea</i>			1	1	1
	<i>Amphipogon amphipogonoides</i>	1		1		1
	<i>Amphipogon laguroides</i>	1		1		
	<i>Amphipogon laguroides</i> subsp. <i>laguroides</i>	1				
	<i>Austrostipa elegantissima</i>		1			

F10.

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
POACEAE (continued)	<i>Austrostipa mollis</i>					1
	<i>Austrostipa</i> sp.	1				1
	* <i>Avena fatua</i>			1		
	* <i>Briza minor</i>	1			1	1
	<i>Lachnagrostis filiformis</i>				1	
	<i>Neurachne alopecuroidea</i>	1	1	1	1	1
	<i>Paspalidium</i> sp.?					1
	<i>Rytidosperma acerosum</i>					1
	<i>Rytidosperma caespitosum</i>	1		1		1
	<i>Rytidosperma setaceum</i>				1	
	<i>Rytidosperma</i> sp.					1
	<i>Tetrarrhena laevis</i>	1	1	1	1	1
	* <i>Vulpia myuros</i>			1	1	
	Poaceae sp.	1	1			
POLYGALACEAE	<i>Comesperma calymega</i>			1		
	<i>Comesperma virgatum</i>	1	1	1	1	1
	<i>Comesperma</i> sp.	1				1
PRIMULACEAE	* <i>Lysimachia arvensis</i>	1		1	1	1
PROTEACEAE	<i>Adenanthos barbiger</i>	1	1	1	1	1
	<i>Adenanthos obovatus</i>	1				
	<i>Banksia armata</i>	1				
	<i>Banksia bipinnatifida</i>	1				1
	<i>Banksia bipinnatifida</i> subsp. <i>bipinnatifida</i>	1				
	<i>Banksia dallanneyi</i> subsp. <i>dallanneyi</i> var. <i>dallanneyi</i>	1	1	1	1	1
	<i>Banksia fraseri</i>		1			
	<i>Banksia grandis</i>	1	1	1	1	1
	<i>Banksia grandis</i> (seedling)					1
	<i>Banksia littoralis</i>	1		1		1
	<i>Banksia seminuda</i>	1				
	<i>Banksia sessilis</i>	1		1		1
	<i>Banksia sphaerocarpa</i>	1	1			
	<i>Banksia squarrosa</i> subsp. <i>squarrosa</i>	1				
	<i>Banksia undata</i> var. <i>undata</i>	1				
	<i>Conospermum canaliculatum</i> subsp. <i>canaliculatum</i>	1				
	<i>Conospermum capitatum</i>	1			1	
	<i>Conospermum capitatum</i> subsp. <i>glabratum</i>	1				
	<i>Conospermum huegelii</i>	1				
	P3 <i>Conospermum scaposum</i>					1
	<i>Conospermum stoechadis</i>	1				
	<i>Conospermum stoechadis</i> subsp. <i>sclerophyllum</i>	1				
	<i>Grevillea bipinnatifida</i>	1				1
	<i>Grevillea diversifolia</i> subsp. <i>diversifolia</i>	1				
	<i>Grevillea manglesii</i> subsp. <i>manglesii</i>	1				
	<i>Grevillea monticola</i>	1				
	<i>Grevillea pulchella</i>					1
	<i>Grevillea pulchella</i> subsp. <i>ascendens</i>	1				
	<i>Grevillea quercifolia</i>	1			1	
	<i>Grevillea synapheae</i>				1	
	<i>Grevillea wilsonii</i>	1	1	1	1	1
	<i>Grevillea</i> sp.	1				1
	<i>Hakea amplexicaulis</i>	1		1		
	<i>Hakea ceratophylla</i>	1				
	<i>Hakea cyclocarpa</i>	1			1	1
	<i>Hakea gilbertii</i>	1				
	<i>Hakea incrassata</i>	1				
	<i>Hakea lissocarpa</i>	1	1	1	1	1
	<i>Hakea marginata</i>	1				
	<i>Hakea petiolaris</i> subsp. <i>petiolaris</i>	1				
	<i>Hakea prostrata</i>	1		1		1

F11.

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots	
PROTEACEAE (continued)	<i>Hakea ruscifolia</i>	1		1	1	1	
	<i>Hakea stenocarpa</i>	1					
	<i>Hakea sulcata</i>	1					
	<i>Hakea trifurcata</i>	1					
	<i>Hakea undulata</i>	1					
	<i>Hakea varia</i>	1		1		1	
	<i>Hakea</i> sp.	1					
	<i>Isopogon dubius</i>	1					
	<i>Persoonia angustiflora</i>	1					
	<i>Persoonia elliptica</i>	1		1	1		
	<i>Persoonia longifolia</i>	1	1	1	1	1	
	<i>Persoonia longifolia</i> (seedling)					1	
	<i>Persoonia saccata</i>	1					
	<i>Persoonia</i> sp.			1			
	<i>Petrophile macrostachya</i>	1				1	
	<i>Petrophile serruriae</i>	1					
	<i>Petrophile squamata</i>	1					
	<i>Petrophile squamata</i> subsp. <i>squamata</i>	1					
	<i>Petrophile striata</i>	1					
	<i>Petrophile</i> sp.	1					
	<i>Stirlingia latifolia</i>	1				1	
	<i>Stirlingia simplex</i>	1					
	<i>Synaphea cuneata</i>	1					
	<i>Synaphea gracillima</i>	1					
	<i>Synaphea petiolaris</i>	1					
	<i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>	1					
	<i>Synaphea</i> sp.	1				1	
	<i>Xylomelum occidentale</i>	1				1	
	Proteaceae sp.	1					
	RANUNCULACEAE	<i>Clematis pubescens</i>	1	1	1	1	1
		<i>Ranunculus colonorum</i>	1	1	1		
* <i>Ranunculus muricatus</i>				1			
RESTIONACEAE	<i>Chaetanthus leptocarpoides</i>	1					
	<i>Chaetanthus tenellus</i>	1					
	<i>Chordifex ?laxus</i>	1					
	<i>Desmocladus fasciculatus</i>	1		1		1	
	<i>Desmocladus flexuosus</i>	1	1	1	1	1	
	<i>Empodisma gracillimum</i>			1			
	<i>Hypolaena exsulca</i>	1		1	1	1	
	<i>Lepidobolus preissianus</i>	1					
	<i>Lepidobolus preissianus</i> subsp. <i>preissianus</i>	1				1	
	<i>Leptocarpus canus</i>	1					
	<i>Leptocarpus coangustatus</i>	1		1			
	<i>Leptocarpus scariosus</i>	1					
	<i>Lepyrodia macra</i>	1					
	<i>Lepyrodia riparia</i>	1					
	<i>Loxocarya cinerea</i>	1		1	1	1	
	<i>Restio</i> sp.	1					
	Restionaceae sp.	1				1	
RHAMNACEAE	<i>Cryptandra arbutiflora</i> var. <i>arbutiflora</i>	1				1	
	<i>Cryptandra arbutiflora</i> var. <i>tubulosa</i>	1					
	<i>Cryptandra mutila</i>	1					
	<i>Cryptandra myriantha</i>	1					
	<i>Cryptandra</i> sp.	1					
	<i>Stenanthemum nanum</i>	1					
	<i>Trymalium ledifolium</i>	1	1	1	1	1	
	<i>Trymalium odoratissimum</i>	1		1		1	
	<i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i>				1		
ROSACEAE	<i>Acaena echinata</i>	1					

APPENDIX F: VASCULAR PLANT SPECIES RECORDED IN MYARA, JARRAHDAL AND NEARBY FOREST AREAS AND PLOTS

FAMILY	SPECIES	Myara Mapping	FMP Plots	Huntly/ Myara Plots	Jarrahdale Plots	Myara Plots
RUBIACEAE	<i>Galium</i> sp.	1				
	<i>Opercularia apiciflora</i>	1			1	1
	<i>Opercularia echinocephala</i>	1	1	1	1	1
	<i>Opercularia hispidula</i>	1			1	1
	<i>Opercularia vaginata</i>	1	1		1	
	<i>Opercularia</i> sp.	1		1		
RUTACEAE	<i>Boronia crenulata</i>	1				1
	<i>Boronia crenulata</i> subsp. <i>pubescens</i>	1				
	<i>Boronia crenulata</i> subsp. <i>viminea</i>					1
	<i>Boronia fastigiata</i>	1	1	1	1	1
	<i>Boronia molloyae</i>	1		1		
	<i>Boronia scabra</i> subsp. <i>scabra</i>	1				
	<i>Boronia</i> sp.	1				
	<i>Cyanothamnus ramosus</i> subsp. <i>anethifolius</i>	1				
<i>Philothea spicata</i>	1	1	1		1	
SANTALACEAE	<i>Leptomeria cunninghamii</i>	1	1	1	1	1
	<i>Santalum acuminatum</i>	1				
SAPINDACEAE	<i>Dodonaea ceratocarpa</i>	1				
SOLANACEAE	* <i>Solanum nigrum</i>	1				
STYLIDIACEAE	<i>Levenhookia pusilla</i>	1	1	1	1	1
	<i>Levenhookia stipitata</i>		1			
	<i>Stylidium affine</i>	1				
	<i>Stylidium amoenum</i>	1	1	1	1	1
	<i>Stylidium androsaceum</i>	1	1	1	1	
	<i>Stylidium bulbiferum</i>		1			1
	<i>Stylidium calcaratum</i>	1	1	1	1	1
	<i>Stylidium ciliatum</i>		1			
	<i>Stylidium crassifolium</i>				1	
	<i>Stylidium diuroides</i>	1				
	<i>Stylidium emarginatum</i>	1				
	<i>Stylidium hispidum</i>	1	1	1	1	1
	<i>Stylidium junceum</i>	1	1		1	
	<i>Stylidium lateriticola</i>	1			1	1
	<i>Stylidium lineatum</i>	1	1			
	<i>Stylidium piliferum</i>	1	1	1	1	1
	<i>Stylidium repens</i>	1				
	<i>Stylidium schoenoides</i>	1			1	1
	<i>Stylidium spathulatum</i>				1	
	<i>Stylidium thesioides</i>	1			1	
<i>Stylidium</i> sp.	1		1			
THYMELACEAE	<i>Pimelea ciliata</i>	1	1	1	1	1
	<i>Pimelea imbricata</i>	1				
	<i>Pimelea lehmanniana</i>				1	
	<i>Pimelea lehmanniana</i> subsp. <i>nervosa</i>	1				
	<i>Pimelea suaveolens</i>	1	1	1	1	1
	<i>Pimelea</i> sp.	1				1
VIOLACEAE	<i>Hybanthus calycinus</i>			1	1	
	<i>Hybanthus debilissimus</i>	1		1		
	<i>Hybanthus floribundus</i>	1		1		1
	<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>					1
XANTHORRHOEACEAE	<i>Xanthorrhoea gracilis</i>	1	1	1	1	1
	<i>Xanthorrhoea preissii</i>	1	1	1	1	1
ZAMIACEAE	<i>Macrozamia riedlei</i>	1	1	1	1	1
	<i>Macrozamia riedlei</i> (seedlings)					

APPENDIX G: SUMMARY OF INTRODUCED SPECIES IN THE MYARA NORTH SURVEY AREA AND ADJACENT MYARA/HUNTLY REGION

WONS - Weeds of National Significance - DAWE - Department of Agriculture, Water and the Environment (2021e);

WAOL - Western Australian Organism List DPIRD - WA Department of Primary Industries and Regional Development (2021);

Ecological impact (EI) and invasiveness (IR) ratings - DPAW - WA Department of Parks and Wildlife (2014)

SPECIES	WONS Weeds (DAWE 2021)	Weeds Status (DPIRD 2021)	EI (DPAW 2014)	IR (DPAW 2014)	Myara former Mapping	Myara 2020 Mapping	Myara Plots	FMP Plots	Huntly Myara Plots	Jarrahdale Plots
* <i>Liliaceae sp.</i>	N	-	-	-	x					
* <i>Disa bracteata</i>	N	-	U	R	x				x	x
* <i>Gomphocarpus fruticosus</i>	N	Declared Pest - s22(2)	U	R		x				
* Asteraceae sp.	N	Permitted - s11	-	-	x	x		x		
* <i>Erigeron sp.</i>	N	Permitted - s11	-	-	x	x			x	
* <i>Medicago sp.</i>	N	Permitted - s11	-	-	x					
* <i>Oxalis compressa</i>	N	Permitted - s11	-	-					x	
* <i>Oxalis corniculata</i>	N	Permitted - s11	-	-					x	x
* <i>Oxalis sp.</i>	N	Permitted - s11	-	-		x				
* <i>Parentucellia latifolia</i>	N	Permitted - s11	-	-	x	x				
* <i>Senecio sp.</i>	N	Permitted - s11	-	-	x					
* <i>Trifolium sp.</i>	N	Permitted - s11	-	-	x					
* <i>Vulpia sp.</i>	N	Permitted - s11	-	-	x					
* <i>Acacia dealbata</i> subsp. <i>dealbata</i>	N	Permitted - s11	H	M	x					
* <i>Leptospermum laevigatum</i>	N	Permitted - s11	H	M	x	x				
* <i>Watsonia meriana</i>	N	Permitted - s11	H	M		x				
* <i>Avena fatua</i>	N	Permitted - s11	H	R					x	
* <i>Cynodon dactylon</i>	N	Permitted - s11	H	R	x					
* <i>Oxalis pes-caprae</i>	N	Permitted - s11	H	S	x	x				
* <i>Plantago lanceolata</i>	N	Permitted - s11	H	U						x
* <i>Romulea rosea</i>	N	Permitted - s11	H	U	x					
* <i>Lavandula stoechas</i>	N	Permitted - s11	L	M		x				
* <i>Robinia pseudoacacia</i>	N	Permitted - s11	L	M	x					
* <i>Senecio vulgaris</i>	N	Permitted - s11	L	M	x					
* <i>Verbascum virgatum</i>	N	Permitted - s11	L	M	x					

APPENDIX G: SUMMARY OF INTRODUCED SPECIES IN THE MYARA NORTH SURVEY AREA AND ADJACENT MYARA/HUNTLY REGION

WONS - Weeds of National Significance - DAWE - Department of Agriculture, Water and the Environment (2021e);

WAOL - Western Australian Organism List DPIRD - WA Department of Primary Industries and Regional Development (2021);

Ecological impact (EI) and invasiveness (IR) ratings - DPAW - WA Department of Parks and Wildlife (2014)

SPECIES	WONS Weeds (DAWE 2021)	Weeds Status (DPIRD 2021)	EI (DPAW 2014)	IR (DPAW 2014)	Myara former Mapping	Myara 2020 Mapping	Myara Plots	FMP Plots	Huntly Myara Plots	Jarrahdale Plots
* <i>Juncus bufonius</i>	N	Permitted - s11	L	R						X
* <i>Arctotheca calendula</i>	N	Permitted - s11	M	M	X					
* <i>Melaleuca armillaris</i> subsp. <i>armillaris</i>	N	Permitted - s11	M	M		X				
* <i>Hypochaeris glabra</i>	N	Permitted - s11	M	R	X	X	X		X	X
* <i>Hypochaeris radicata</i>	N	Permitted - s11	M	R	X					
* <i>Hypochaeris</i> sp.	N	Permitted - s11	M	R	X					
* <i>Pinus pinaster</i>	N	Permitted - s11	M	R		X				
* <i>Sonchus oleraceus</i>	N	Permitted - s11	M	R	X		X			X
* <i>Vellereophyton dealbatum</i>	N	Permitted - s11	M	R	X					
* <i>Acacia longifolia</i>	N	Permitted - s11	U	M		X				
* <i>Acacia longifolia</i> subsp. <i>longifolia</i>	N	Permitted - s11	U	M		X				
* <i>Hypericum perforatum</i>	N	Permitted - s11	U	M	X					
* <i>Phytolacca octandra</i>	N	Permitted - s11	U	M	X					
* <i>Solanum nigrum</i>	N	Permitted - s11	U	M		X				
* <i>Aira caryophyllea</i>	N	Permitted - s11	U	R	X		X		X	X
* <i>Aira cupaniana</i>	N	Permitted - s11	U	R	X					
* <i>Brassica tournefortii</i>	N	Permitted - s11	U	R	X					
* <i>Briza minor</i>	N	Permitted - s11	U	R	X	X	X			X
* <i>Briza maxima</i>	N	Permitted - s11	U	R	X					
* <i>Centaurium erythraea</i>	N	Permitted - s11	U	R	X				X	X
* <i>Dittrichia graveolens</i>	N	Permitted - s11	U	R						
* <i>Erigeron sumatrensis</i>	N	Permitted - s11	U	R			X			X
* <i>Lotus uliginosus</i>	N	Permitted - s11	U	R						
* <i>Lysimachia arvensis</i>	N	Permitted - s11	U	R	X	X	X		X	X
* <i>Orobanche minor</i>	N	Permitted - s11	U	R	X					

APPENDIX G: SUMMARY OF INTRODUCED SPECIES IN THE MYARA NORTH SURVEY AREA AND ADJACENT MYARA/HUNTLY REGION

WONS - Weeds of National Significance - DAWE - Department of Agriculture, Water and the Environment (2021e);

WAOL - Western Australian Organism List DPIRD - WA Department of Primary Industries and Regional Development (2021);

Ecological impact (EI) and invasiveness (IR) ratings - DPAW - WA Department of Parks and Wildlife (2014)

SPECIES	WONS Weeds (DAWE 2021)	Weeds Status (DPIRD 2021)	EI (DPAW 2014)	IR (DPAW 2014)	Myara former Mapping	Myara 2020 Mapping	Myara Plots	FMP Plots	Huntly Myara Plots	Jarrahdale Plots
* <i>Ranunculus muricatus</i>	N	Permitted - s11	U	R					x	
* <i>Ursinia anthemoides</i>	N	Permitted - s11	U	R	x	x				
* <i>Vulpia myuros</i>	N	Permitted - s11	U	R	x				x	x
* <i>Cyperus rotundus</i>	N	Permitted - s11	U	S					x	
* <i>Pentameris airoides</i>	N	Permitted - s11	U	U	x					
* <i>Trifolium arvense</i>	N	Permitted - s11	U	U	x					
* <i>Trifolium dubium</i>	N	Permitted - s11	U	U					x	x
* <i>Bellardia trixago</i>	N	Permitted - s11			x					

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Austrostipa</i> sp.																			X
<i>Babingtonia camphorosmae</i>				X	X	X							X						
<i>Banksia bipinnatifida</i>															X				
<i>Banksia dallanneyi</i> subsp. <i>dallanneyi</i> var. <i>dallanneyi</i>			X	X	X	X		X		X	X	X	X	X	X	X	X	X	X
<i>Banksia fraseri</i>													X						
<i>Banksia grandis</i>		X	X								X	X	X	X	X	X	X	X	X
<i>Banksia sessilis</i>			X									X			X	X			
<i>Banksia sphaerocarpa</i>													X						
<i>Banksia littoralis</i>	X	X						X											
<i>Baumea juncea</i>	X	X																	
<i>Billardiera floribunda</i>							X		X								X		X
<i>Billardiera</i> sp.1																	X		
<i>Billardiera variifolia</i>	X												X		X	X	X	X	X
<i>Billardiera fraseri</i>			X												X				
<i>Billardiera fusiformis</i>	X	X												X	X	X			X
<i>Boronia crenulata</i>								X											
<i>Boronia crenulata</i> subsp. <i>viminea</i>								X											
<i>Boronia fastigiata</i>		X	X							X	X	X	X	X	X	X	X	X	X
<i>Boronia molloyae</i>		X					X		X						X				
<i>Bossiaea aquifolium</i>			X				X		X	X		X	X		X	X	X	X	X
<i>Bossiaea ornata</i>		X	X		X						X	X	X		X	X	X	X	X
<i>Bossiaea spinescens</i>													X						
<i>Bossiaea eriocarpa</i>																			X
<i>Brachyscome pusilla</i>				X															
<i>Bulbine semibarbata</i>		X																	
<i>Burchardia congesta</i>	X	X	X										X	X	X	X	X	X	X
<i>Caladenia flava</i>		X	X	X							X		X	X	X	X	X	X	X

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Caladenia macrostylis</i>															x	x	x		
<i>Caladenia reptans</i>			x												x	x	x		x
<i>Caladenia</i> sp.			x									x			x	x			x
<i>Caladenia</i> sp. 1			x																
<i>Calothamnus quadrifidus</i>																			x
<i>Calothamnus</i> sp.				x															
<i>Cassytha glabella</i>		x													x		x	x	x
<i>Cassytha racemosa</i>									x								x	x	x
<i>Cassytha</i> sp.								x											
<i>Caustis dioica</i>						x													
<i>Centella asiatica</i>		x																	
<i>Centrolepis drummondiana</i>	x																		
<i>Centrolepis aristata</i>	x	x		x							x								x
<i>Chamaescilla corymbosa</i>	x		x	x	x	x				x		x	x		x	x	x	x	x
<i>Chorizema cordatum</i>						x						x	x		x	x	x		x
<i>Chorizema ilicifolium</i>		x																	
<i>Chorizema rhombeum</i>															x			x	x
<i>Clematis pubescens</i>		x	x										x	x	x	x	x	x	x
<i>Comesperma calymega</i>															x				
<i>Comesperma virgatum</i>			x							x	x		x		x	x	x	x	x
<i>Comesperma</i> sp.												x							
<i>Conospermum capitatum</i>			x																
<i>Conostylis aculeata</i>															x	x			x
<i>Conostylis setigera</i>			x			x		x		x		x	x		x	x	x	x	x
<i>Conostylis setosa</i>			x							x	x	x	x	x	x	x	x		x
<i>Conostylis pusilla</i>				x	x										x		x		
<i>Conostylis serrulata</i>			x					x			x	x	x		x	x	x	x	x
<i>Corymbia calophylla</i>			x	x	x	x		x		x	x		x	x	x	x	x	x	x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Craspedia variabilis</i>				x												x		x	
<i>Cryptandra arbutiflora</i> var. <i>arbutiflora</i>					x														
<i>Cryptostylis ovata</i>	x						x								x	x			x
<i>Cyanicula sericea</i>															x		x		
<i>Cyathochaeta avenacea</i>	x		x				x	x		x	x	x	x	x	x	x	x	x	x
Cyperaceae sp.													x						
<i>Cyrtostylis robusta</i>															x	x	x	x	x
<i>Dampiera alata</i>	x	x			x	x									x				x
<i>Dampiera hederacea</i>							x	x											
<i>Dampiera linearis</i>	x	x	x			x		x	x	x	x	x	x		x	x	x		x
<i>Dampiera pedunculata</i>	x	x																	
<i>Dasyogon bromeliifolius</i>																			x
<i>Daucus glochidiatus</i>															x	x		x	x
<i>Daviesia decurrens</i>													x			x			
<i>Daviesia horrida</i>	x					x													
<i>Daviesia physodes</i>																	x		
<i>Daviesia preissii</i>													x						
<i>Daviesia rhombifolia</i>													x						
<i>Desmocladius flexuosus</i>			x			x					x	x	x		x	x	x		x
<i>Desmocladius fasciculatus</i>				x	x	x		x					x		x		x		
<i>Dianella revoluta</i>		x											x		x		x	x	x
<i>Dichopogon capillipes</i>	x															x			x
<i>Diuris longifolia</i>	x	x					x						x	x	x	x	x	x	x
<i>Drosera bulbosa</i>											x				x	x			x
<i>Drosera erythrorhiza</i>	x	x	x									x	x		x	x	x	x	x
<i>Drosera macrantha</i>															x	x	x	x	x
<i>Drosera microphylla</i>			x																
<i>Drosera pallida</i>		x	x										x		x	x	x	x	x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Drosera platystigma</i>	x	x							x		x				x				
<i>Drosera pulchella</i>	x	x													x		x		
<i>Drosera</i> sp.													x		x		x	x	x
<i>Drosera</i> sp. (climbing)												x				x			x
<i>Drosera</i> sp. 1	x		x	x	x	x						x	x		x	x			x
<i>Drosera</i> sp. 2	x			x	x	x		x					x		x	x	x		
<i>Drosera stolonifera</i>											x		x	x	x		x	x	x
<i>Elythranthera brunonis</i>						x										x		x	
<i>Empodisma gracillimum</i>	x														x				
<i>Eriochilus dilatatus</i>		x							x				x	x	x	x	x	x	x
<i>Eriochilus scaber</i>																		x	
<i>Eriochilus tenuis</i>															x				x
<i>Eucalyptus marginata</i>		x	x	x		x		x		x	x	x	x	x	x	x	x	x	x
<i>Eucalyptus megacarpa</i>							x		x						x				
<i>Eucalyptus patens</i>		x					x	x	x						x	x		x	
<i>Eucalyptus rudis</i>	x	x																	
<i>Eucalyptus</i> sp.													x		x				
<i>Euchiton sphaericus</i>																		x	
<i>Gahnia decomposita</i>	x	x						x	x						x				
<i>Gastrolobium ebracteolatum</i>		x					x		x										
<i>Gastrolobium spinosum</i>													x						
<i>Gastrolobium villosum</i>													x						
<i>Glischrocaryon aureum</i>													x		x	x			
<i>Gompholobium capitatum</i>															x	x			
<i>Gompholobium cyaninum</i>													x						
<i>Gompholobium knightianum</i>			x							x	x	x	x		x	x			x
<i>Gompholobium marginatum</i>	x	x	x	x	x	x		x		x	x	x	x		x	x	x		x
<i>Gompholobium polymorphum</i>			x	x		x				x	x		x	x	x	x	x	x	x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Hemiandra pungens</i>						X						X			X				
<i>Hemigenia pritzellii</i>		X	X										X		X	X	X	X	X
<i>Hibbertia acerosa</i>	X		X							X			X		X	X	X		X
<i>Hibbertia amplexicaulis</i>		X	X	X		X	X		X	X		X	X	X	X	X	X	X	X
<i>Hibbertia commutata</i>		X	X	X		X			X	X		X	X	X	X	X	X	X	X
<i>Hibbertia diamesogenos</i>	X																		
<i>Hibbertia huegellii</i>	X		X										X		X				
<i>Hibbertia huegellii</i>															X				
<i>Hibbertia hypericoides</i>			X	X		X							X		X	X	X	X	
<i>Hibbertia lasiopus</i>															X				
<i>Hibbertia lineata</i>						X													
<i>Hibbertia ovata</i>													X		X	X	X	X	X
<i>Hibbertia perfoliata</i>			X	X									X		X	X	X	X	
<i>Hibbertia quadricolor</i>												X		X	X	X	X		
<i>Hibbertia racemosa</i>															X				
<i>Hibbertia sp.</i>													X		X	X		X	X
<i>Hibbertia striata</i>															X				
<i>Hovea chorizemifolia</i>		X	X							X	X	X	X	X	X	X	X	X	X
<i>Hovea trisperma</i>			X			X					X		X		X	X	X	X	X
<i>Hyalosperma cotula</i>	X														X		X		
<i>Hybanthus calycinus</i>													X	X	X	X	X		X
<i>Hybanthus debilissimus</i>			X												X	X	X	X	X
<i>Hybanthus floribundus</i>						X									X	X			X
<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>															X	X			X
<i>Hydrocotyle callicarpa</i>	X	X											X		X		X		X
<i>Hypocalymma angustifolium</i>	X	X	X	X	X	X				X	X				X	X	X	X	X
<i>Hypocalymma cordifolium</i>	X	X					X		X						X				
<i>Hypolaena exsulca</i>			X			X	X	X			X				X				

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Isolepis marginata</i>																	X		
<i>Isotoma hypocrateriformis</i>		X													X			X	
<i>Isotropis cuneifolia</i>	X					X													
<i>Jacksonia alata</i>						X													
<i>Juncus planifolius</i>	X	X																	
<i>Juncus subsecundus</i>	X																		
<i>Kennedia coccinea</i>		X	X						X			X	X		X	X	X	X	X
<i>Kennedia prostrata</i>			X	X	X										X	X	X	X	X
<i>Kingia australis</i>						X													
<i>Kunzea glabrescens</i>						X													
<i>Kunzea recurva</i>						X													
<i>Labichea punctata</i>			X						X	X		X	X	X	X	X	X		X
<i>Lachnagrostis filiformis</i>																			X
<i>Lagenophora huegelii</i>	X	X	X	X									X	X	X	X	X	X	X
<i>Lasiopetalum floribundum</i>		X	X				X	X	X			X	X	X	X	X	X	X	X
<i>Lasiopetalum glabratum</i>			X										X			X			
<i>Lasiopetalum glutinosum</i>			X													X			
<i>Laxmannia squarrosa</i>				X	X														
<i>Lechenaultia biloba</i>			X		X	X		X		X		X	X		X	X	X	X	X
<i>Lepidobolus preissianus</i> subsp. <i>preissianus</i>					X														
<i>Lepidosperma gracile</i>													X		X	X			
<i>Lepidosperma leptostachyum</i>													X	X	X	X			X
<i>Lepidosperma longitudinale</i>								X											
<i>Lepidosperma pubisquamatum</i>	X		X										X			X			
<i>Lepidosperma</i> sp.	X									X			X		X		X		
<i>Lepidosperma</i> sp.1			X										X			X			X
<i>Lepidosperma squamatum</i>	X	X	X	X	X	X							X		X	X	X		X
<i>Lepidosperma tenue</i>		X	X			X						X	X		X	X			

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Lepidosperma tetraquetrum</i>		x					x		x						x				
<i>Leporella fimbriata</i>			x								x		x		x		x	x	x
<i>Leptocarpus coangustatus</i>	x	x											x						
<i>Leptomeria cunninghamii</i>	x		x										x		x	x	x	x	x
<i>Leptospermum erubescens</i>				x						x					x				
<i>Leucopogon australis</i>													x						
<i>Leucopogon capitellatus</i>		x	x			x							x		x	x	x	x	x
<i>Leucopogon hirsutus</i>		x																	
<i>Leucopogon parviflorus</i>								x											
<i>Leucopogon sprengeioides</i>						x													
<i>Leucopogon verticillatus</i>			x										x		x	x	x	x	x
<i>Levenhookia pusilla</i>	x	x				x				x	x	x	x		x		x		x
<i>Levenhookia stipitata</i>																			x
<i>Lindsaea linearis</i>			x			x													
<i>Liparophyllum capitatum</i>	x																		
<i>Lobelia gibbosa</i>																x			
<i>Lobelia</i> sp.								x											
<i>Lomandra brittanii</i>						x						x	x	x	x	x	x	x	x
<i>Lomandra caespitosa</i>		x	x	x		x					x		x		x	x	x	x	x
<i>Lomandra drummondii</i>											x		x		x	x	x	x	x
<i>Lomandra hermaphrodita</i>	x	x	x	x		x				x	x	x	x	x	x	x	x	x	x
<i>Lomandra integra</i>	x	x	x				x		x		x		x		x	x	x	x	x
<i>Lomandra micrantha</i>		x	x			x						x	x		x	x	x	x	x
<i>Lomandra micrantha</i> subsp. <i>micrantha</i>																			x
<i>Lomandra nigricans</i>			x										x	x	x	x	x	x	x
<i>Lomandra odora</i>											x		x		x	x	x	x	x
<i>Lomandra preissii</i>		x	x			x				x		x	x	x	x	x	x	x	x
<i>Lomandra purpurea</i>													x		x	x	x		x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Lomandra sericea</i>													X	X	X			X	X
<i>Lomandra sonderi</i>		X	X	X						X	X	X	X		X	X	X	X	X
<i>Lomandra</i> sp.	X		X			X	X					X	X		X	X	X	X	X
<i>Lomandra</i> sp.1																X			
<i>Lomandra spartea</i>	X		X		X	X				X		X	X		X	X	X	X	X
<i>Loxocarya cinerea</i>			X					X				X	X		X	X	X	X	X
<i>Lyperanthus serratus</i>																X			
<i>Macrozamia riedlei</i>		X	X	X			X	X	X	X		X	X		X	X	X	X	X
<i>Marianthus drummondianus</i>																			X
<i>Melaleuca incana</i>	X	X																	
<i>Melaleuca parviceps</i>					X														
<i>Melaleuca preissiana</i>	X	X																	
<i>Melaleuca viminea</i>	X																		
<i>Mesomelaena graciliceps</i>											X				X				
<i>Mesomelaena stygia</i>	X																		
<i>Mesomelaena tetragona</i>	X		X																
<i>Microtis media</i>	X	X					X		X								X		X
<i>Millotia tenuifolia</i>				X	X								X		X		X	X	X
<i>Mirbelia dilatata</i>						X		X			X				X	X		X	X
<i>Monotaxis grandiflora</i>			X										X		X	X	X		X
<i>Monotaxis grandiflora</i> var. <i>grandiflora</i>												X	X		X	X			
<i>Monotaxis occidentalis</i>													X		X	X	X		X
<i>Neurachne alopecuroidea</i>	X		X	X	X	X	X	X			X		X		X	X	X	X	X
<i>Olax benthamiana</i>																	X		X
<i>Opercularia apiciflora</i>											X		X	X	X	X	X	X	X
<i>Opercularia echinocephala</i>	X		X	X		X		X			X	X	X	X	X	X	X	X	X
<i>Opercularia hispidula</i>																	X	X	X
<i>Opercularia</i> sp.								X								X			

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Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Pimelea suaveolens</i>			x	x	x	x							x		x	x	x	x	x
<i>Platysace commutata</i>			x			x						x	x		x	x	x		x
<i>Platysace compressa</i>			x										x		x	x	x	x	x
<i>Platysace filiformis</i>													x		x				
<i>Platysace tenuissima</i>													x	x	x	x	x	x	x
Poaceae sp.																	x		x
<i>Podolepis capillaris</i>	x																		
<i>Podotrochea angustifolia</i>				x									x						
<i>Podotrochea gnaphalioides</i>					x														
<i>Poranthera microphylla</i>													x		x	x			
<i>Prasophyllum brownii</i>																	x	x	x
<i>Prasophyllum elatum</i>																x			x
<i>Prasophyllum</i> sp.																x			
<i>Prasophyllum</i> sp.1															x	x			
<i>Pseudognaphalium luteoalbum</i>													x					x	
<i>Pteridium esculentum</i>		x					x	x	x				x		x	x	x	x	x
<i>Pterochaeta paniculata</i>												x	x		x				
<i>Pterostylis barbata</i>															x			x	
<i>Pterostylis pyramidalis</i>		x	x								x		x		x	x	x	x	x
<i>Pterostylis recurva</i>									x		x		x	x	x		x		x
<i>Pterostylis</i> sp.			x									x							
<i>Pterostylis</i> sp. 1																x			x
<i>Pterostylis vittata</i>			x										x		x	x	x	x	x
<i>Ptilotus drummondii</i>													x		x				
<i>Ptilotus drummondii</i> var. <i>drummondii</i>													x						
<i>Ptilotus manglesii</i>					x					x		x	x			x			x
<i>Pyrorchis nigricans</i>			x										x		x	x			x
<i>Ranunculus colonorum</i>													x		x			x	x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
Restionaceae sp.						X													
<i>Rytidosperma acerosum</i>																	X		
<i>Rytidosperma caespitosum</i>	X	X				X						X	X		X	X	X		X
<i>Rytidosperma setaceum</i>															X				
<i>Rytidosperma</i> sp.						X													
<i>Scaevola calliptera</i>		X	X		X	X				X	X	X	X	X	X	X	X	X	X
<i>Scaevola pilosa</i>	X																	X	X
<i>Scaevola</i> sp.			X																X
<i>Senecio diaschides</i>		X		X											X		X		X
<i>Senecio hispidulus</i>													X		X		X	X	X
<i>Senecio quadridentatus</i>																			X
<i>Senecio</i> sp.	X			X													X		
<i>Senecio</i> sp.1				X															
<i>Sowerbaea laxiflora</i>	X		X										X		X	X			X
<i>Sphaerolobium linophyllum</i>											X		X		X				
<i>Sphaerolobium macranthum</i>						X													
<i>Sphaerolobium medium</i>			X			X							X		X				X
<i>Sphaerolobium</i> sp.						X									X	X			
<i>Stachystemon vermicularis</i>															X	X			
<i>Stackhousia monogyna</i>															X				X
<i>Stirlingia latifolia</i>												X							
<i>Stylidium amoenum</i>			X							X		X	X		X	X	X	X	X
<i>Stylidium androsaceum</i>													X		X		X		X
<i>Stylidium brunonianum</i>						X													
<i>Stylidium bulbiferum</i>										X			X		X				
<i>Stylidium calcaratum</i>	X		X										X		X	X	X	X	X
<i>Stylidium ciliatum</i>						X				X			X		X				

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Stylidium crassifolium</i>	x	x																	
<i>Stylidium hirsutum</i>															x	x			
<i>Stylidium junceum</i>													x		x				
<i>Stylidium lateriticola</i>													x		x	x	x		x
<i>Stylidium lineatum</i>										x									
<i>Stylidium pilliferum</i>			x	x	x					x		x	x		x	x	x	x	x
<i>Stylidium recurvum</i>	x																		
<i>Stylidium repens</i>						x									x				
<i>Stylidium rhynchocarpum</i>																			x
<i>Stylidium scariosum</i>													x		x				
<i>Stylidium schoenoides</i>		x									x		x	x	x	x	x	x	x
<i>Stylidium sp.</i>	x											x				x			
<i>Stylidium sp. 1</i>																x			
<i>Stylidium spathulatum</i>	x	x																	
<i>Stylidium thesioides</i>	x	x																	
<i>Stylidium hispidum</i>						x					x		x		x	x	x		x
<i>Styphelia discolor</i>	x		x												x		x	x	x
<i>Styphelia erubescens</i>																			x
<i>Styphelia hispida</i>													x						
<i>Styphelia nitens</i>	x		x							x	x		x		x	x	x	x	x
<i>Styphelia pallida</i>		x											x		x	x		x	x
<i>Styphelia propinqua</i>			x					x		x	x		x		x	x	x	x	x
<i>Styphelia tenuiflora</i>				x							x		x		x	x	x	x	x
<i>Synaphea sp.</i>																			x
<i>Taxandria linearifolia</i>	x	x					x	x	x						x				
<i>Tetraria capillaris</i>		x	x			x			x		x	x	x	x	x	x	x	x	x
<i>Tetraria octandra</i>	x		x	x	x	x		x			x	x	x		x	x	x		x
<i>Tetraria sp. Jarrah Forest (R. Davis 7391)</i>			x	x	x	x				x		x	x		x	x	x	x	x

APPENDIX H: SUMMARY OF SPECIES IN THE VEGETATION PLOTS WITHIN MYARA NORTH AND THE NEARBY MYARA NORTH REGION

Note: * denotes introduced species and P3 and P4 denote Priority Flora species.

Species	A	AC	D	D/DA	DA	E	C	CW	W	PW	SW	P	PS	PT	S	SP	ST	T	TS
<i>Tetrarrhena laevis</i>	x	x	x		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
<i>Tetradlea hirsuta</i>		x	x							x			x	x	x	x	x	x	x
<i>Thelymitra antennifera</i>	x	x							x										
<i>Thelymitra crinita</i>			x				x	x			x		x	x	x	x	x	x	x
<i>Thelymitra macrophylla</i>		x	x										x	x	x	x	x	x	x
<i>Thelymitra</i> sp.								x		x			x		x	x			
<i>Thomasia paniculata</i>	x	x					x	x	x							x			
<i>Thomasia pauciflora</i>																			x
<i>Thysanotus ? scaber</i>													x						
<i>Thysanotus dichotomus</i>												x	x		x	x	x	x	x
<i>Thysanotus fastigiatus</i>					x					x			x		x	x	x		x
<i>Thysanotus gracilis</i>		x																	
<i>Thysanotus manglesianus</i>	x												x		x		x		x
<i>Thysanotus multiflorus</i>			x	x	x	x		x		x	x	x	x	x	x	x	x	x	x
<i>Thysanotus patersonii</i>																x			x
<i>Thysanotus</i> sp.												x			x			x	x
<i>Thysanotus</i> sp.1				x	x								x		x	x			
<i>Thysanotus sparteus</i>																x			
<i>Thysanotus tenellus</i>		x											x		x			x	x
<i>Thysanotus thyrsoideus</i>	x	x	x								x	x	x	x	x	x	x	x	x
<i>Trachymene pilosa</i>		x	x	x	x						x	x	x	x	x		x	x	x
<i>Trichocline spathulata</i>	x		x		x					x		x	x	x	x	x	x	x	x
<i>Tricoryne elatior</i>	x	x	x					x			x		x		x	x	x		x
<i>Tricoryne humilis</i>	x		x								x		x		x	x			
<i>Tripterococcus brunonis</i>	x				x								x		x	x			
<i>Trymalium ledifolium</i>		x	x		x					x		x	x	x	x	x	x	x	x
<i>Trymalium odoratissimum</i>						x									x				
<i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i>															x				x

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Acacia nervosa</i>			1		3	3	2	3	1					4	13		15	1		2			
<i>Acacia obovata</i>					2																		
<i>Acacia oincinophylla</i>							1		3														
<i>Acacia pulchella</i>	4	10	16	1	120	16	4	2	28	62	7	25	54	40	120	2	316	54	60	412	147	50	70
<i>Acacia pulchella</i> var. <i>glaberrima</i>									1								2			1	1	1	1
<i>Acacia saligna</i>	9	6	4						1								1	1		2			
<i>Acacia</i> sp.		2	1		1							1			2		3					1	
<i>Acacia stenoptera</i>	4	2	2		4			1	1					2	3						1	1	
<i>Acacia trigonophylla</i>									1						2		1			3			
<i>Acacia urophylla</i>			3		55	1	3	1	3	25		8	35	17	64		151	34	51	384	144	69	102
<i>Acacia willdenowiana</i>		2	5		8	4		3				1		3	17		8		1	4			
<i>Acaena echinata</i>					1						1												
<i>Adenanthos barbiger</i>	1		5		76	5	1	11	1	6		2	35	102	420	6	990	78	101	519	132	23	64
<i>Adenanthos meisneri</i>					1					1													
<i>Adenanthos obovatus</i>		3	9		3									1	2		6		1		1	1	
<i>Adiantum aethiopicum</i>											2												
<i>Agrostocrinum hirsutum</i>	1	1			2												4	1		3	3	2	3
<i>Allocasuarina fraseriana</i>	1	12	18		93	16	6	18	6	15	11	11	16	167	698	10	1264	136	107	153	29	5	16
<i>Allocasuarina humilis</i>		1	1		10	3	2	3	9	5					17		3						
<i>Allocasuarina microstachya</i>	1								1														
<i>Amphipogon amphipogonoides</i>			3		9				7	4		4	5	3	8		23	2	3	32	13	4	10
<i>Amphipogon laguroides</i> subsp. <i>laguroides</i>			1																				
<i>Amphipogon laguroides</i>			1																				
<i>Andersonia aristata</i>									1						1								
<i>Andersonia lehmanniana</i>	2	6	14		4	3	1	2	3	5			2		1						1		
<i>Andersonia lehmanniana</i> subsp. <i>lehmanniana</i>	2		16		7	3	3		3	3					5		1						
<i>Anigozanthos manglesii</i>					2																		
<i>Anigozanthos</i> sp.					8								1		6		7			2			
<i>Aotus gracillima</i>		1																					
Asparagaceae sp.							1											1		1	1		
<i>Astartea leptophylla</i>											1												
<i>Astartea scoparia</i>	10	71	34	1	3	11	3	2	5	1	23												
Asteraceae sp.	1		1		4		1		3	2	1	2	4	2	11		8		5	11			1
<i>Asterolasia pallida</i>									11	6	1	1	3				1			11	3	1	1

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

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Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Austrostipa</i> sp.								1	1														
<i>Babingtonia camphorosmae</i>	6	11	29		57	15	12	9	13	15	1	2	9	26	21	2	9		1	3		1	
<i>Banksia armata</i>								1		1													
<i>Banksia bipinnatifida</i>					5			2						4	1		1			3			
<i>Banksia bipinnatifida</i> subsp. <i>bipinnatifida</i>					5	1	1	1					1	1	4		1	1		1			
<i>Banksia dallanneyi</i> subsp. <i>dallanneyi</i> var. <i>dallanneyi</i>	15	57	105	1	284	71	26	28	15	54	5	23	96	154	453	8	600	33	74	447	71	22	20
<i>Banksia grandis</i>	2	10	28		118	23	6	7	1	10	11	11	56	90	198	5	1318	119	158	719	236	59	163
<i>Banksia littoralis</i>	8	43	45		4	29		4			22	3			4	1	5		2		1		
<i>Banksia seminuda</i>		1																	2				
<i>Banksia sessilis</i>			4		14			1	6	7		3	6	19	87	1	69	3	9	93	6	4	4
<i>Banksia sphaerocarpha</i>						1	1			1					2								
<i>Banksia squarrosa</i>					2			1	2	1					2								
<i>Banksia squarrosa</i> subsp. <i>squarrosa</i>							1			1													
<i>Banksia undata</i> var. <i>undata</i>									3	1					1		1						
<i>Banksia undata</i>									1														
<i>Baumea vaginalis</i>		2									1												
<i>Billardiera fusiformis</i>			1			1			1	1		1	1				3			8		1	1
<i>Billardiera heterophylla</i>		1			1												1			2			
<i>Billardiera</i> sp.		1													1		3			2	1		
<i>Boronia crenulata</i>			1					1			1			2	4		11	2		7			3
<i>Boronia crenulata</i> subsp. <i>pubescens</i>					1																		
<i>Boronia fastigiata</i>	3	14	16	1	61	12	2	2	1	15	5	8	36	50	163		483	76	75	408	102	30	92
<i>Boronia molloyae</i>		1															1						
<i>Boronia scabra</i> subsp. <i>scabra</i>					1			1						5	7		1		1	3			
<i>Boronia</i> sp.			2										1		3				1	1			
<i>Borya sphaerocephala</i>					1				20	2					1								
<i>Bossiaea aquifolium</i>					9			1	2	7	5	4	8	1	5	1	55	5	11	110	47	3	19
<i>Bossiaea eriocarpa</i>																	1						
<i>Bossiaea ornata</i>		7	12		198	15	9	16	4	29	1	9	48	103	460	4	740	47	93	517	81	23	51
<i>Bossiaea pulchella</i>			1		4			2			1		1	8	39		73	2	10	22	3		1
<i>Burchardia congesta</i>					3		1		5	5		1	3	1	4		5	3		8	1	3	5
<i>Burchardia multiflora</i>			1						2	1		1			1				1	5			
<i>Burchardia</i> sp.					2									1									
<i>Caesia micrantha</i>																						1	
<i>Caladenia flava</i>					4	1			6	4	1		1				3	2	1	6	9	4	10

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Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Caladenia reptans</i>		1			2				4	1				1	1		8			6	1		1
<i>Caladenia reptans</i> subsp. <i>reptans</i>															1								
<i>Caladenia</i> sp.	1		1		6	2	1		1	2	1		3	6	9		20		4	7	8	3	5
<i>Callistachys lanceolata</i>					1						1				1								
<i>Callitris pyramidalis</i>					1										1								
<i>Calothamnus lateralis</i>		3																					
<i>Calothamnus quadrifidus</i>															2								
<i>Calothamnus rupestris</i>					2				4	2									1				
<i>Calothamnus sanguineus</i>			3		4	3		7	3	1				1	20		3			2			
<i>Calothamnus</i> sp.														1	1		1						
<i>Calytrix ?depressa</i>									3	3													
<i>Calytrix flavescens</i>						1			3	1	1												
<i>Calytrix</i> sp.	2	2	6		11	5	4	2	9	8		2	1		5		1		1	5	1		
<i>Calytrix variabilis</i>					1				1								1		1				
<i>Cassytha glabella</i>			1																				
<i>Cassytha</i> sp.	1	6	7	1	10	2	1		2	3	6	5		1	4		4			5	3	3	5
<i>Centella asiatica</i>			1							1													
<i>Centrolepis aristata</i>									3	3													
<i>Chaetanthus leptocarpoides</i>		1									1												
<i>Chaetanthus tenellus</i>		1																					
<i>Chamaescilla corymbosa</i>	6	9	24		94	17	4	11	12	12	2	7	34	67	237	2	284	10	25	186	38	6	10
<i>Cheilanthes austrotenuifolia</i>									3	1													
<i>Cheilanthes sieberi</i>									2														
<i>Cheilanthes</i> sp.						1			14	3	1									1	1		1
<i>Chorizandra enodis</i>		1	1																				
<i>Chorizema cordatum</i>	1				2						1	3	2	3	1		10		2	7	1	3	1
<i>Chorizema dicksonii</i>					2										1								
<i>Clematis pubescens</i>	3	2	1		6	1			1	18	5	12	7	2	3		45	117	9	27	243	130	161
<i>Comesperma ?virgatum</i>		3	5		4				1	1			1		1		1	1		7			
<i>Comesperma</i> sp.			1				1										1		1				
<i>Comesperma virgatum</i>			2		10	3	2		2	2		1	4	25	3	21	2	1	8	1			
<i>Conospermum canaliculatum</i> subsp. <i>canaliculatum</i>					1					1													
<i>Conospermum capitatum</i>		1			4	1				1					13	1	6						
<i>Conospermum</i> sp.										1		1			2		6			7			
<i>Conospermum stoechadis</i>					5	3								1	9	1	8		1	2			

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Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Conospermum stoechadis</i> subsp. <i>sclerophyllum</i>			1																				
<i>Conospermum capitatum</i> subsp. <i>glabratum</i>		1	5		1	2								1			1						
<i>Conostylis ?caricina</i> subsp. <i>caricina</i>					1																		
<i>Conostylis aculeata</i>			7		1															2			
<i>Conostylis pusilla</i>	2	7	19		49	12	7	7	12	9		1	4	22	93	3	44		7	37	1		336
<i>Conostylis serrulata</i>		8	32		51	5	3	3	1	8	1	2	16	26	119	3	224	10	18	87	8	3	9
<i>Conostylis setigera</i>		7	12		82	15	1	7	3	15	1	6	28	65	269	2	391	20	50	219	19	8	6
<i>Conostylis setigera</i> subsp. <i>setigera</i>		1											1					2		1	1		1
<i>Conostylis setosa</i>		6	3		64	9	4	10		10	1	4	28	49	160	1	250	28	31	149	15	6	18
<i>Conostylis</i> sp.			2		1		1			1		2		2	7		5		3		1		1
<i>Corymbia calophylla</i>	14	77	125	1	363	78	31	35	74	120	47	42	132	157	545	6	846	117	136	1050	277	131	193
<i>Corymbia maculata</i>														1	1								
<i>Craspedia variabilis</i>	1	2	7		49	5			2	7	2	2	20	10	19		30	6	2	62	7	4	6
<i>Cryptandra arbutiflora</i> subsp. <i>tubulosa</i>					1																		
<i>Cryptandra mutila</i>					1		1																
<i>Cryptandra myriantha</i>									2														
<i>Cryptandra</i> sp.										1													
<i>Cryptostylis</i> sp.																	1	1					2
<i>Cyanicula sericea</i>																	1						
<i>Cyathochaeta avenacea</i>	1	16	18		73	18	7	12	2	15	10	5	18	58	274	7	345	12	48	142	28	15	15
Cyperaceae sp.	1	2	4		6	1	1	3		1			1	3	4		1	1		6	4	6	8
<i>Dampiera alata</i>		6	9		9	1	2	2	1	1	4	1	1	3	12		26	5	5	22	4	1	
<i>Dampiera linearis</i>		3	11		39	7	3	5		2	3		6	14	83		104	3	11	40	5	7	3
<i>Dampiera</i> sp.														1			1						
<i>Darwinia citriodora</i>		1							2		3	2	1	1									
<i>Darwinia</i> sp.														1									
<i>Dasypogon bromeliifolius</i>	3	16	35		10	1							2	1	2		1			2			
<i>Daviesia cordata</i>										2			1		1		1			3	2		
<i>Daviesia decurrens</i>		2	4		23	2	3	3		1			1	9	61		47	1	9	35	2		1
<i>Daviesia horrida</i>		5	8		2	1	2		7	3	1			1	1		1		1	2	1	1	
<i>Daviesia incrassata</i>		1									1				1		1		1	5			
<i>Daviesia preissii</i>					17	4	3	1		4		1	5	7	38	2	60	2	5	47	1		1
<i>Daviesia rhombifolia</i>					2								2	2	4		9			1			
<i>Daviesia</i> sp.			1																				
<i>Dayspogon bromeliifolius</i>		5	11		2												2	1		2			

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	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Desmocladius fasciculatus</i>	7	29	100		127	33	11	12	5	12	1	6	21	23	60	4	65	5	11	70	7	6	7
<i>Desmocladius flexuosus</i>	1	5	13		39	7		3	1	1	1	3	14	26	124	5	237	17	32	136	15	4	18
<i>Dianella revoluta</i>					8	1			1	2		1		6	20		46	9	6	19	5		
<i>Dillwynia laxiflora</i>															1								
<i>Diuris longifolia</i>									1														
<i>Diuris</i> sp.									1					1	1								
<i>Dodonaea ceratocarpa</i>									11	1													
<i>Drosera erythrorhiza</i>	1	1	3		9			2	4	4		1	3	2	15		16		2	10	2		1
<i>Drosera macrantha</i>					1				6	1			1				2			5	1	1	4
<i>Drosera</i> sp.	23	55	102		203	45	20	20	53	44	9	16	80	108	379	5	565	47	76	509	111	29	58
<i>Drosera</i> sp. (climbing)					4		1	1		1		2	3	13	21	1	31	3	7	14	6		6
<i>Drosera</i> sp. 1					1	1			2				1	1	1		4			2			
<i>Drosera</i> sp. 2			1		2	1			1				1	1	2		7	1		5	1		
<i>Drosera stolonifera</i>					5				4	3		1		1	3		22		1	9	2	2	3
<i>Elythranthera brunonis</i>									3						1								
<i>Eriachne</i> sp.																							1
<i>Ericaceae</i> sp.	1	1	1		3					1				1	2		4	1		6	1	4	1
<i>Eucalyptus drummondii</i>							2																
<i>Eucalyptus marginata</i>	11	72	125		421	87	28	38	67	128	43	55	148	210	790	12	1359	158	181	1210	336	151	223
<i>Eucalyptus megacarpa</i>		8	2	1	1			2			12	15	1	2	6		9		2	4	4		3
<i>Eucalyptus patens</i>	13	78	61	1	55	28	9	5	12	8	47	39		4	16		3		3	2	4	12	3
<i>Eucalyptus rudis</i>	6	9	3			2		4			6	1			1								
<i>Eucalyptus</i> sp.			1		1																		
Fabaceae sp.	1														1		1			2			
<i>Gahnia aristata</i>					1				2			1			2		2		1				
<i>Gahnia decomposita</i>	1	25	5		4		1				18	1									1		
<i>Galium</i> ?sp.										1								1					
<i>Gastrolobium bilobum</i>									1	1					1					1			
<i>Gastrolobium calycinum</i>					3					1					3		3		1	6			
<i>Gastrolobium retusum</i>						1																	
<i>Gastrolobium</i> sp.			1																				
<i>Gastrolobium spinosum</i>			2		22	6	6	3	22	23	3		4	6	26		10		5	33	13	7	4
<i>Gastrolobium villosum</i>					14		4	15	15	15		3	2	6	29		8		4	9			1
<i>Glischrocaryon aureum</i>					4	1			1	1				2	2		8	1	1	2	1		

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	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Hakea petiolaris</i> subsp. <i>petiolaris</i>					1																		
<i>Hakea prostrata</i>	7	7	18		14	23	2	2	2					1	3		2		1				
<i>Hakea ruscifolia</i>		2			38	5	6	5	2	11			10	19	77	2	95	1	8	46	9	1	5
<i>Hakea</i> sp.	1							3							1				1				
<i>Hakea stenoptera</i>					3			1							7		2						
<i>Hakea sulcata</i>			1																				
<i>Hakea trifurcata</i>	1	4	3	1	5	2	1		13	3					1					3			
<i>Hakea trisperma</i>								1															
<i>Hakea undulata</i>	1	3	5		11	2	9	12	27	29	1	2	2	5	19		4			7	1		
<i>Hardenbergia comptoniana</i>															3		1		1	5	1		
<i>Hemiandra pungens</i>			1		10	3	2		1	2				1	22	1	8		1	2			
<i>Hemiandra</i> sp.					3	1			1	1			2	1	6	1	1						
<i>Hemigenia incana</i>					1		2		4				1										
<i>Hemigenia pritzelii</i>	1	7	6		17	5	1	1	1	4		2	2	7	35		11	1	1	10	3	1	2
<i>Hemigenia</i> sp.							1										2		1				
<i>Hibbertia acerosa</i>		4	3		13	7	3	2	1			2	25	22	46		55	14	4	73	23	5	10
<i>Hibbertia amplexicaulis</i>	1	8	11		86	18	7	6	4	23	3	14	68	52	124		338	70	71	486	134	61	116
<i>Hibbertia commutata</i>	3	4	11		150	21	12	10	20	51	4	18	84	97	361	4	787	91	119	623	190	64	121
<i>Hibbertia huegelii</i>		1	10		8	2	1					1	11	12	36		73	5	7	92	4		1
<i>Hibbertia hypericoides</i>		4	21		193	19	9	19	10	32		7	20	45	211	3	210	6	27	207	16	17	6
<i>Hibbertia lasiopus</i>															1		5	1		3			
<i>Hibbertia perfoliata</i>		7	7		46	6	1	1	4	18	4	8	20	13	56	1	119	18	7	131	72	28	37
<i>Hibbertia quadricolor</i>										1					2	1	4		2	1			
<i>Hibbertia silvestris</i>													1					1					
<i>Hibbertia</i> sp.		2	2		1	1						1	1	1	4		9			6	6		1
<i>Hibbertia stellaris</i>		2	7			2																	
<i>Hovea chorizemifolia</i>	1		5		32	1	2	1	1	9	1	3	14	27	100		280	40	35	225	42	10	28
<i>Hovea elliptica</i>		1			7	3		1				3	1		1		3	1	1	10	2		3
<i>Hovea</i> sp.					4										2		3		1				1
<i>Hovea trisperma</i>	2	4	16		52	3	2	7	3	14		2	8	17	58	3	103	6	8	62	18	9	12
<i>Hovea trisperma</i> var. <i>grandiflora</i>			1		3			1		1		1	1	5	6		22	9	1	11	3	4	8
<i>Hyalosperma cotula</i>			1						2														
<i>Hybanthus floribundus</i>			1		1			3	1		1	1	1	2	8		6			4	1		
<i>Hypocalymma angustifolium</i>	31	85	132	1	138	62	25	21	46	49	18	21	145	198	59	1	64	6	11	26	20	22	12
<i>Hypocalymma cordifolium</i>		2	1		2	1	2		1				1	2	9		9	1	2	2			

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<i>Hypocalymma robustum</i>		7	9		2	1		3						1	1	4	2			4			
<i>Hypolaena exsuica</i>	8	35	59		27	9	1	2	2		2	3	1	4	8	1	8			2		1	173
Iridaceae sp.		2																					
<i>Isolepis cernua</i>			1																				
<i>Isopogon dubius</i>					2				1	1							6		2	1			
<i>Isotropis cuneifolia</i> subsp. <i>cuneifolia</i>																				2			
<i>Jacksonia furcellata</i>		1	7		2					1							1			2			
<i>Johnsonia lupulina</i>					2		1	1						2	7	1	7			4			
<i>Juncus</i> sp.											1												1
<i>Kennedia coccinea</i>		2	7		116	8	4	8	2	22	2	9	25	43	277	2	516	28	64	391	101	41	55
<i>Kennedia prostrata</i>	4	21	45		98	27	7	4	9	10	2	9	24	29	57	2	110	6	13	101	15	16	9
<i>Kennedia</i> sp.					2																		
<i>Kingia australis</i>	1	1						43	2	1							2			1			
<i>Kunzea ?micrantha</i> subsp. <i>micrantha</i>																		1					
<i>Kunzea micrantha</i>		1																					
<i>Kunzea recurva</i>	1	10	8		27	6	5	2	11	5	2	2	2	4	11		8		2	8	1	1	
<i>Kunzea</i> sp.					1	1	1										1			1			
<i>Labichea punctata</i>					2					1							6			2			1
<i>Lagenophora huegellii</i>	8	16	27		113	21	4	1	14	33	14	20	73	50	90	1	156	57	48	417	191	93	118
<i>Lasiopetalum floribundum</i>		10	2		29	2	3	4	6	18	15	17	33	50	174	3	392	79	49	432	216	88	163
<i>Lasiopetalum glabratum</i>			1		17		2	8		6			2	12	63		58		11	18			2
<i>Lasiopetalum</i> sp.			1		1					2				1	7		11		1	1			
<i>Laxmannia sessiliflora</i>									1	1													
<i>Laxmannia sessiliflora</i> ? subsp. <i>australis</i>					1																		
<i>Laxmannia</i> sp.			1		1				2	3				2	4	1							
<i>Laxmannia squarrosa</i>					3					1													
<i>Lechenaultia biloba</i>		6	19		69	9	6	9	2	14		5	23	29	149		204	16	35	120	20	6	8
<i>Lepidosperma gracile</i>													1	2	1		4						
<i>Lepidobolus preissianus</i>									1														
<i>Lepidosperma asperatum</i> sens. lat.		1	4		2	1				3				1	6		1						
<i>Lepidosperma gracile</i> sens. lat.					1					1							2	1					
<i>Lepidosperma leptostachyum</i>			1																				
<i>Lepidosperma longitudinale</i> sens. lat.	1	2	1				1				1												
<i>Lepidosperma pubisquameum</i> sens. lat.	1	1	5		13	1	2	1					3	3	10	1	21		1	6	1		
<i>Lepidosperma</i> sp.	12	23	42	1	60	13	4	5	9	9	3	5	13	33	129	2	218	12	15	118	8	2	10

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<i>Lepidosperma</i> sp. (flat)					1										1		1		1				
<i>Lepidosperma</i> sp. (terete)															1		1		2				
<i>Lepidosperma squamatum</i> sens. lat.	3	13	24		58	9	6	9	3	8	1		5	15	95	2	108	4	7	41			2
<i>Lepidosperma tenue</i>	1		6		6	2			1	3				2	4		2	1	1	3	1		
<i>Lepidosperma tetraquetrum</i>	1	11			2					1	15	3										1	
<i>Leptocarpus coangustatus</i>											1				1								
<i>Leptocarpus scariosus</i>		2									4												
<i>Leptomeria cunninghamii</i>	1	1	5		8	4		2	4	5			8	6	11		26	2	2	29	4	1	3
<i>Leptospermum erubescens</i>	5	2	3		32	14	6	4	15	21	1	1	5	13	76		25	1	6	7			
<i>Lepyrodiac macra</i>		2	1																				
<i>Lepyrodiac riparia</i>					1																		
<i>Leucopogon ?tenuis</i>					1			2						1	5		1			1			
<i>Leucopogon australis</i>	2	5	8		1	2				1			1	1	1	1	2	1		1	3	1	
<i>Leucopogon capitellatus</i>		1	5		21	1	1	1	2	9	1	5	8	2	14		49	14	9	97	50	24	37
<i>Leucopogon glabellus</i>						1	1			2										1			
<i>Leucopogon nutans</i>		1			2										1					1			
<i>Leucopogon propinquus</i>										1	1						3						
<i>Leucopogon sp.</i>		1			1			2							2						1		3
<i>Leucopogon verticillatus</i>		3	1		3	1				1	1		3	1	7		14	15	1	47	37	8	39
<i>Levenhookia pusilla</i>					2				3	4		1		1	1					5			
<i>Lindsaea linearis</i>		8	34		25	9	2	8			2	3	6	7	12	1	6			14			
<i>Lococarya cinerea</i>							1			1					1		2						
<i>Lomandra sonderi</i>																							1
<i>Lomandra ?caespitosa</i>		2	1		2									1	3		7			2	1	1	1
<i>Lomandra ?drummondii</i>																	2						
<i>Lomandra ?hermaphrodita</i>					1												2	1			1		
<i>Lomandra ?nigricans</i>																				1			
<i>Lomandra ?odora</i>					1				1						5		6		1	6	3		1
<i>Lomandra ?preissii</i>														2	1		4		1				
<i>Lomandra ?spartea</i>																				1			
<i>Lomandra britannii</i>																				2		1	
<i>Lomandra caespitosa</i>		8	2		17	6		1		3	1	2	5	7	20		54	5	6	54	25	10	9
<i>Lomandra drummondii</i>			1		2					6		1	1	1	2		6		3	13	13	8	13
<i>Lomandra effusa</i>															1								
<i>Lomandra hermaphrodita</i>	1	8	33		151	24	9	22	4	29	4	8	36	82	347	9	597	43	72	293	58	12	30

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<i>Lomandra integra</i>															1		5		1				
<i>Lomandra micrantha</i>					3					1				4	9		18	1	1	7	4		1
<i>Lomandra micrantha subsp. micrantha</i>			2		12					1			9	1	11		27	4	2	20	5	7	6
<i>Lomandra nigricans</i>			1		3	1							3	6	19		41	4	10	59	13	6	9
<i>Lomandra preissii</i>		1	1		6			2				1	1	4	15		32	4	3	25	14	5	6
<i>Lomandra purpurea</i>														1	4		2			3	1		1
<i>Lomandra sericea</i>					2							1		4	8		12	4	4	2	3	7	10
<i>Lomandra sonderi</i>		9	17		127	18	8	10	1	16	4	12	46	115	479	8	1022	102	124	641	146	42	89
<i>Lomandra sp.</i>	2	18	26		80	15	6	6	3	9	7	6	23	33	135	3	259	22	28	245	64	22	34
<i>Lomandra spartea</i>		3	3		83	8	3	8	5	19	3	7	31	73	262	1	388	16	52	308	39	7	16
<i>Lomandra suaveolens</i>								1															
<i>Loxocarya cinerea</i>		6	22		19	4		1	1	2	4	3	13	14	72	2	130	7	18	88	10	5	15
<i>Lyginia barbata</i>	3				1	1			2					1	1		1		1	1			
<i>Lyginia imberbis</i>		4	7		1										1								
<i>Lysinema pentapetalum</i>						1																	
<i>Macrozamia riedlei</i>	1	10	22		190	17	9	5	28	74	22	41	87	56	203	1	498	125	100	792	302	141	205
<i>Marianthus drummondianus</i>																							1
<i>Marianthus sp.</i>		1	12		1					1				4	10		14	1	1	1			
<i>Melaleuca ?lateritia</i>	5		6						1														
<i>Melaleuca ?parviceps</i>			1		3		1		4	3					1								
<i>Melaleuca ?trichophylla</i>										1					2								
<i>Melaleuca ?viminea</i>	1																						
<i>Melaleuca armillaris subsp. armillaris</i>	1																						
<i>Melaleuca incana subsp. incana</i>					2						1												
<i>Melaleuca parviceps</i>			2		1				1														
<i>Melaleuca pauciflora</i>	1	2	2								1												
<i>Melaleuca preissiana</i>	36	117	153	1	3	28	3	1	1		6			1	4		2			1			
<i>Melaleuca raphiophylla</i>	5	10	4		2			1			2												
<i>Melaleuca sp.</i>		6	5			1	1		3	1		1	1	1	3		1		1				
<i>Melaleuca trichophylla</i>													1										
<i>Melaleuca viminea</i>		1																					
<i>Mesomelaena gracilis</i>		1			4					2				1	4		3			1			
<i>Mesomelaena tetragona</i>	9	36	69		48	18	12	14		4	3	1	2	2	9				1	2			
<i>Millotia tenuifolia</i>									6	2										1			
<i>Mirbelia dilatata</i>	2	18	3	1	15	4	2	2	9	10	26	18	15	5	13		10	5	5	47	21	19	23

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Monotaxis occidentalis</i>		2			1		1		1	1			1	2	1			1					
Myrtaceae sp.		1			1					1				1			1			1			
<i>Neurachne alopecuroidea</i>	1	7	7		39	6	1	6	7	10		2	3	15	39	4	39	1	5	27	9	1	5
<i>Nuytsia floribunda</i>	8	20	25		18	6	2	3	9	4	1	1			2		2	1		2			
<i>Olearia paucidentata</i>									1														
<i>Opercularia apiciflora</i>		1	1		6	1								3	2		5		1	4		1	
<i>Opercularia echinocephala</i>	1	19	31		202	25	7	12	6	35	10	17	74	68	260	3	577	61	71	551	169	71	89
<i>Opercularia hispidula</i>														1									
<i>Opercularia sp.</i>					2	2						1		1			4	2	2	8	3	3	5
<i>Opercularia vaginata</i>					1										2		1			1			
Orchidaceae sp.	1	4	8	1	25	5	1		2	4	2	1	16	19	52	1	81	8	6	80	21	13	14
Orchidaceae sp. 1										1			1		1			1		2	1		
Orchidaceae sp. 2										1			1		1			1		2	1		
<i>Orianthera serpyllifolia</i>														1			3		1	4	5		
<i>Orthrosanthus laxus</i>					1																		
<i>Oxalis sp.</i>			1							1	1	1			1		1	1	1	2	1	8	5
<i>Paraserianthes lophantha</i>		6				1					3	1	1	1	5		18		3	8	5	1	3
<i>Patersonia juncea</i>	2	3	2		1					3	1				4				1				
<i>Patersonia occidentalis</i>	6	6	20		81	14	11	5	2	26	1	3	21	38	131	2	172	13	42	131	27	4	13
<i>Patersonia pygmaea</i>	2	7	11		15	8		4	1		1	2	5	13	40		47	2	2	30	8	1	3
<i>Patersonia rudis</i>	2	3	5		71	2	3	6	3	9	1		9	25	108	3	103	5	12	68	12	1	6
<i>Patersonia sp.</i>					1									2	6		6						
<i>Pauridia sp.</i>					5							1			1								
<i>Pelargonium littorale</i>	2																			1	5	3	2
<i>Pentapeltis peltigera</i>	1	9	12		97	15	4	6	1	17	7	12	48	66	181	1	367	48	45	274	80	33	64
<i>Pericalymma ellipticum</i>	17	40	57		33	15	9	8	3	5	1	1			18	1	7	3		5	3		1
<i>Persoonia angustiflora</i>										1				1	1					1			
<i>Persoonia elliptica</i>					13	1	1	1		4		2	9	13	71	2	281	25	38	128	38	4	11
<i>Persoonia longifolia</i>		4	13		131	19	4	3	4	23	3	11	67	74	165	4	560	70	79	500	161	84	130
<i>Persoonia saccata</i>					1					1							1						
<i>Petrophile serruriae</i>					7	1	3	4	5	4					13		4			6			
<i>Petrophile sp.</i>																	1						
<i>Petrophile squamata</i>					2				1						3								
<i>Petrophile squamata</i> subsp. <i>squamata</i>					2	2											1		1	1			
<i>Petrophile striata</i>					6					4				3	3		8		1	8			

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Senecio diaschides</i>			1		9				2	1	1	1	3	6	1	11	2	1	10	3	12	16	
<i>Senecio hispidulus</i>					5							2	1	3	2		5	1	2	7	3	3	4
<i>Senecio quadridentatus</i>	1											1	2	1			5		1	2	3		2
<i>Senecio</i> sp.	1	3	5		13	4			3	3	2	2	4	1	8		15	4	4	23	18	14	11
<i>Sowerbaea laxiflora</i>										1													
<i>Sphaerolobium medium</i>		3			10				2	1		1	3	1	8		16		3	16	2	1	2
<i>Stackhousia monogyna</i>									7	1													1
<i>Stenanthemum nanum</i>															1								
<i>Stirlingia latifolia</i>	2	3	20		14	6			1				1	3	25	12	23		1	10			1
<i>Stirlingia simplex</i>			1											2	4	1	6						
<i>Stphelia discolor</i>					1																		
<i>Stylidium ?hispidum</i>																	1						
<i>Stylidium ?junceum</i>			2																				
<i>Stylidium ?lateritcola</i>									1	1					2								
<i>Stylidium ?thesioides</i>		2			1			1												1			
<i>Stylidium affine</i>																				2			
<i>Stylidium amoenum</i>	2	5	9		47	4	2	5	2	31	3	4	9	27	121		211	19	32	227	50	12	23
<i>Stylidium androsaceum</i>					2				1	2		1					1			2	2		2
<i>Stylidium bulbiferum</i>			1		1					1				1	2		4			5	1		1
<i>Stylidium calcaratum</i>									3								1				1		
<i>Stylidium diuroides</i>									1					1	5		2			2	1		
<i>Stylidium emarginata</i>									1														
<i>Stylidium hispidum</i>		1	4		34	1	1	3	3	4		2	14	17	62	1	87	10	18	72	8	2	2
<i>Stylidium junceum</i>		3	2		12	2	2	2		1				7	28	1	45		4	9			
<i>Stylidium lateritcola</i>					1													1					
<i>Stylidium lineatum</i>															1	1	1			1			
<i>Stylidium piliferum</i>	1	6	11		111	17	5	4	6	29	1	7	40	73	251	1	385	21	66	397	56	15	27
<i>Stylidium repens</i>			1			2		1	3	2							1						
<i>Stylidium schoenoides</i>					2												5	1	1	1	2		
<i>Stylidium</i> sp.	2	2	10		13	6	4	3	3	2			3	10	27	1	19	1	2	19		1	1
<i>Stylidium ?diuroides</i>									2						1								
<i>Stypandra glauca</i>									4														
<i>Styphelia</i> sp.																	2						
<i>Styphelia ?epacridis</i>					1		1	1									1			1			
<i>Styphelia ?propinqua</i>			1										1		1		2	3	1	4	2		3

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Styphelia discolor</i>	1	6	12		44	8	4	3	3	14	6	2	12	16	27		45	4	11	75	18	10	14
<i>Styphelia erectifolia</i>					2				4	1							1			2			
<i>Styphelia nitens</i>		7	8		17	9	2			11	1	7	14	17	33		54	15	12	80	10	5	15
<i>Styphelia pallida</i>		3	2		20	5	2	2	4	2	1	2	5	8	14		8	5	1	38	16	11	10
<i>Styphelia propinqua</i>		1	5		28	2		1		6	1	1	9	10	26	1	38	15	17	55	32	7	23
<i>Styphelia</i> sp.	1	1	1		3		1			1		1		1	9		11			9	3		1
<i>Styphelia stricta</i>					1				2														
<i>Styphelia tenuiflora</i>	1	3	5		60	5	6	4	2	13			19	30	139	4	250	6	22	129	13	5	8
<i>Synaphea ?petiolaris</i>															1								
<i>Synaphea cuneata</i>		1	1		1									1	2								
<i>Synaphea gracillima</i>	1		3		5	1	3	2		1						1							
<i>Synaphea petiolaris</i>		5	3		9	2		7		2			1	7	23	1	26	1	2	6			
<i>Synaphea propinqua</i>																			1				
<i>Synaphea</i> sp.	4	10	20		13	7	2	7	4	2		1	1	9	33		21		2	2			
<i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>		4	1		3		1		1				1	1	7		6		2	3			
<i>Syphelia pallida</i>										1													
<i>Taxandria linearifolia</i>	5	71	27	1	5	15	1	3		1	59	6		7	7		5	1	1	3			
<i>Tetraria octandra</i>																							
<i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)	5	27	48		237	44	18	12	8	58	12	31	69	111	412	2	672	71	102	575	125	55	93
<i>Tetrarrhena laevis</i>	2	9	8		47	9	2	3	4	15	13	12	26	21	80		220	38	33	162	74	31	53
<i>Tetradthea hirsuta</i>	1	13	4		48	10	3	4	2	11	6	5	23	34	101		274	36	40	214	69	16	37
<i>Tetradthea</i> sp.																							
<i>Thelymitra anterifera</i>									2														
<i>Thelymitra crinita</i>																				3			
<i>Thelymitra</i> sp.									1						1								
<i>Thomasia glabratum</i>					1																		
<i>Thomasia paniculata</i>		22	1	1	1	1					21	1		2	4		1			3		1	
<i>Thysanotus thyrsoides</i>																	1						
<i>Thysanotus dichotomus</i>	1								1		4	2		2	7		18	2	3	7	7	3	2
<i>Thysanotus fastigiatus</i>		1	2		8	1				2	1	2	4	14	65		112	18	9	34	10	6	13
<i>Thysanotus manglesii</i>	1				2				1	2	1	4	1		2		5	1		6	4	10	6
<i>Thysanotus multiflorus</i>		2	1		7					3		2	3	11	28		58	2	7	23	13	4	7
<i>Thysanotus patersonii</i>	1									1							1		1		1		1
<i>Thysanotus scaber</i>	1									1										2	6		
<i>Thysanotus</i> sp.	1		2		1	4		1	1	1	1	1	3	4	13		16	3	2	9	8	3	2

APPENDIX I: SUMMARY OF VASCULAR PLANT SPECIES BY RECORDING SITES IN MYARA NORTH SURVEY AREA

Note: * denotes introduced species, P3 denotes Priority 3 species.

Species	Site-vegetation Types based on recording sites																						
	A	AC	AD	AW	D	DA	DG	E	G	R	CW	W	SW	PW	P	PJ	PS	PT	SP	S	ST	T	TS
<i>Thysanotus thyrsoideus</i>			1		6				1	2		4		1	5		15	2	2	9	7	2	4
<i>Thysanotus fastigiatus</i>																		1					
<i>Trachymene pilosa</i>		1	2		6	2			6	9	1	2	5		1	2	8	1		8	16	4	11
<i>Tribonanthes australis</i>	3	4			2				3														
<i>Trichocline spathulata</i>		1	2		89	4	7	11	2	20	1	5	24	89	356	3	705	68	80	366	78	20	49
<i>Tricoryne elatior</i>	1	2	1		1										1					1			
<i>Tricoryne sp.</i>					5	2		1		1					1								
<i>Tripterococcus brunonis</i>		1			7	1	1	1	3	3			1	1	7		3			3	1		
<i>Trymalium ledifolium</i>	2	11	15		63	13	5	21	29	27	9	9	21	58	251		430	36	27	227	31	10	18
<i>Trymalium odoratissimum</i>	5	9	4		23	4	1	2	20	37	38	33	19	4	3		14	8	1	53	44	34	31
<i>Utricularia multifida</i>	2								1														
<i>Verticordia densiflora</i>									1		1				1	1							
<i>Verticordia pennigera</i>									1		1												
<i>Verticordia plumosa</i>	1	2						4	27	4					1					1			
<i>Verticordia plumosa var. plumosa</i>			1					1			1												
<i>Verticordia sp.</i>			1						1						1								
<i>Viminaria juncea</i>	2	4	3			1									1								
<i>Wurmbea sp.</i>		3	2		1				4														
<i>Xanthorrhoea gracilis</i>	1	30	34		161	25	11	14	5	44	12	13	54	77	293	4	437	59	91	576	143	67	111
<i>Xanthorrhoea preissii</i>	32	96	139	1	326	74	37	28	56	98	34	45	100	98	292	4	292	45	62	569	104	47	56
<i>Xanthosia atkinsoniana</i>		1	4		42	9	1	5	8	15	5	4	22	26	171	1	323	33	47	250	81	28	35
<i>Xanthosia candida</i>	4	15	20		142	20	7	16	10	37	9	19	37	89	327	4	493	27	47	273	91	45	50
<i>Xanthosia ciliata</i>					1								2				1			1	1	2	
<i>Xanthosia huegelii</i>	1	15	24		60	15	8	1	2	10	4	4	16	13	35	1	51	7	7	79	18	17	12
<i>Xanthosia sp.</i>		1			1					1	1		1	2	3		3			4	1	4	3
<i>Xylomelum occidentale</i>		1	9		30	18				1		1	2	3	8		9		2	7	1		

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: All data is plants/m² and rounded to 2 decimals places (so if 0.00 then value is < 0.01)

<i>Species</i>	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Acacia alata</i>		0.01			0.03				0.01									
<i>Acacia applanata</i>																		
<i>Acacia barbinervis</i>																		
<i>Acacia browniana</i>	0.01						0.13	0.49		0.31								
<i>Acacia celastrifolia</i>																		
<i>Acacia divergens</i>																		
<i>Acacia drummondii</i>	0.04		0.01			0.05										0.08		0.01
<i>Acacia extensa</i>																		
<i>Acacia lateriticola</i>	0.01					0.06		0.36	0.01				0.08		0.06	0.14		
<i>Acacia nervosa</i>																		
<i>Acacia preissiana</i>								0.05		0.66								
<i>Acacia pulchella</i>	0.01													0.01				
<i>Acacia saligna</i>																		
<i>Acacia sp.</i>						0.01												
<i>Acacia stenoptera</i>																		
<i>Acacia urophylla</i>																		
<i>Acacia varia</i>																		
<i>Acacia willdenowiana</i>			0.29		0.01	0.04												
<i>Acacia drummondii subsp. candolleana</i>																		
<i>Adenanthos barbiger</i>		0.01	0.03		0.98	0.64		0.04	0.56		1.68			0.45		0.50		0.01
<i>Agrostocrinum scabrum</i>														0.15	0.01			
<i>Aira caryophylla</i>													0.01					
* <i>Allocauarina fraseriana</i>					0.03					0.03	0.01				0.26			
<i>Amphipogon amphipogonoides</i>				0.01	0.18							0.03	0.20	0.19	0.25	0.03	0.14	0.06
<i>Andersonia lehmanniana</i>																		
<i>Anigozanthos manglesii</i>																		
<i>Aotus cordifolia</i>																		
<i>Aphelia cyperoides</i>																		
<i>Astartea scaparia</i>																		
<i>Asteraceae sp.</i>																		
<i>Austrostipa elegantissima</i>																		
<i>Austrostipa mollis</i>																		
* <i>Austrostipa sp.</i>																		
<i>Babingtonia camphorosmae</i>																		
<i>Banksia bipinnatifida</i>																		
<i>Banksia dallanneyi subsp. dallanneyi var. dallanneyi</i>	0.01		0.06	2.20	0.53	0.10	0.31	0.09	0.01	0.35		0.04		0.45	0.65	0.65		
* <i>Banksia fraseri</i>																		
<i>Banksia grandis</i>					0.01	0.06		0.01	0.35		0.60	0.03		0.08	<000.1	0.10		
<i>Banksia sessilis</i>						0.03												
<i>Banksia sphaerocarpa</i>																		
<i>Banksia grandis (seedling)</i>																		
<i>Banksia littoralis</i>																		
<i>Billardiera floribunda</i>																		0.05
<i>Billardiera sp.1</i>																		
<i>Billardiera variifolia</i>													0.06	0.08				

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

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Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
* <i>Gompholobium sp.1</i>																		
<i>Gompholobium tomentosum</i>																		
<i>Gonocarpus cordiger</i>																		
<i>Gonocarpus sp.</i>																		
<i>Goodenia sp.1</i>																		
<i>Goodenia trinervis</i>																		
<i>Grevillea bipinnatifida</i>																		
<i>Grevillea pulchella</i>																		
<i>Grevillea quercifolia</i>																		
<i>Grevillea synapheae</i>																		
<i>Grevillea wilsonii</i>						0.03									0.23			
<i>Haemodoraceae sp.</i>																		
<i>Haemodorum laxum</i>															0.01	0.03	0.01	
<i>Haemodorum sp.</i>				0.01	0.03				0.03	0.06								
<i>Haemodorum sp. 1</i>																		
<i>Haemodorum sp. 2</i>																		
<i>Haemodorum spicatum</i>																		
<i>Hakea amplexicaulis</i>					0.10													
<i>Hakea cyclocarpa</i>																		
<i>Hakea lissocarpha</i>															0.03			
<i>Hakea prostrata</i>																		
<i>Hakea ruscifolia</i>															0.01			
<i>Hakea varia</i>																		
<i>Hemiantra pungens</i>																		
<i>Hemiantra pungens</i>																		
<i>Hemigenia pritzelii</i>				0.28														0.01
<i>Hibbertia acerosa</i>				0.85	0.03	0.21	0.01		0.36	0.21	0.01	0.16						
<i>Hibbertia amplexicaulis</i>		0.04			0.14	0.70		0.01	0.15	0.15	0.40	0.20	0.16	0.31	0.21	0.14	0.35	
<i>Hibbertia commutata</i>		0.01	0.03		0.80	0.88	0.05	0.04	0.18		0.59	0.04	0.03	0.24	0.21	0.14	0.14	
<i>Hibbertia commutata (seedling)</i>																		
<i>Hibbertia huegelii</i>					0.01								0.05					
<i>Hibbertia hypericoides</i>					0.05													
<i>Hibbertia lasiopus</i>							0.03			0.05								
<i>Hibbertia lineata</i>																		
<i>Hibbertia ovata</i>					0.06							0.09		0.01				
<i>Hibbertia perfoliata</i>					0.18						0.05							
<i>Hibbertia quadricolor</i>												0.05						
<i>Hibbertia racemosa</i>												0.01						
<i>Hibbertia sp.</i>																		
<i>Hibbertia striata</i>																		
<i>Hovea chorizemifolia</i>	0.04	0.10	0.58	0.05		0.03	0.04	0.16	0.01	0.11	0.08	0.05		0.05	0.01	0.03	0.04	0.03
<i>Hovea trisperma</i>																		
<i>Hyalosperma cotula</i>																		
<i>Hybanthus calycinus</i>												0.06		0.01			0.11	
<i>Hybanthus floribundus</i>											0.34	0.01						

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: All data is plants/m² and rounded to 2 decimals places (so if 0.00 then value is < 0.01)

Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Hybanthus floribundus subsp. floribundus</i>																		
<i>Hydrocotyle callicarpa</i>													0.98		0.15			
<i>Hypocalymma angustifolium</i>													0.64					
<i>Hypochaeris glabra</i>													0.01					
<i>Hypolaena exsulca</i>																		
<i>Isolepis marginata</i>																		
<i>Isotropis cuneifolia</i>																		
<i>Jacksonia alata</i>																		
<i>Juncus bufonius</i>																		
<i>Kennedia coccinea</i>											0.08			0.01				
<i>Kennedia prostrata</i>																		
<i>Kingia australis</i>																		
<i>Kunzea glabrescens</i>																		
<i>Kunzea recurva</i>																		
<i>Labichea punctata</i>													0.04	0.09	0.11			
<i>Lachnagrostis filiformis</i>																		
<i>Lagenophora huegelii</i>		0.09			1.20	0.05	0.16	0.05	0.03				0.63	0.08		0.08		
<i>Lasiopetalum floribundum</i>	0.09	0.74									0.86	0.01	0.03	0.90	0.06	0.15	1.76	0.13
<i>Lasiopetalum glabratum</i>															1.18			
<i>Lasiopetalum glutinosum</i>																		
<i>Laxmannia squarrosa</i>																		
<i>Lechenaultia biloba</i>	0.06	0.05				0.03	0.08	0.01		0.10		0.03				0.06		
<i>Lepidobolus preissianus subsp. preissianus</i>																		
<i>Lepidosperma leptostachyum</i>																		
<i>Lepidosperma longitudinale</i>																		
<i>Lepidosperma pubisquamum</i>																		
<i>Lepidosperma sp.</i>																		
<i>Lepidosperma sp.1</i>																		
<i>Lepidosperma squamatum</i>													0.01	0.01				
<i>Lepidosperma tenue</i>					0.25		0.13			0.16								
* <i>Leporella fimbriata</i>																		
<i>Leptocarpus coangustatus</i>					0.01													
<i>Leptomeria cunninghamii</i>			0.00		0.04													
<i>Leptospermum erubescens</i>																		
<i>Leucopogon australis</i>																		
<i>Leucopogon capitellatus</i>					0.01	0.08					0.04			0.18	0.03	0.04		0.01
* <i>Leucopogon parviflorus</i>																		
<i>Leucopogon sprengeloides</i>																		
<i>Leucopogon verticillatus</i>					0.13					0.01	0.06			0.04		0.00		
<i>Levenhookia pusilla</i>				0.15			0.01						0.01		0.41			
<i>Levenhookia stipitata</i>																		
<i>Lindsaea linearis</i>																		
<i>Lobelia sp.</i>																		
<i>Lomandra brittanii</i>													0.01	0.01				
<i>Lomandra caespitosa</i>	0.81	0.36	0.08	1.23	0.02	0.08	0.06	0.13	0.40	0.43	1.15	0.43	0.29	0.08	0.09	0.16	0.04	0.14

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Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Lomandra drummondii</i>		0.29							0.01									
<i>Lomandra hermaphrodita</i>	0.35	0.15	0.36	0.03	0.15	0.34	0.15	0.21	0.05	0.24	0.08	0.10	0.10		0.36	0.04		
<i>Lomandra integra</i>																		
<i>Lomandra micrantha</i>														0.69	0.08	0.83		0.18
<i>Lomandra micrantha subsp. micrantha</i>																		
<i>Lomandra nigricans</i>			0.03									0.04	0.03			0.04		
<i>Lomandra odora</i>			0.10		0.04	0.01												
<i>Lomandra preissii</i>	0.51						0.16	0.13				0.03	0.01			0.01	0.28	
<i>Lomandra purpurea</i>						0.03												
<i>Lomandra sericea</i>		0.03													0.01	0.01		
<i>Lomandra sonderi</i>	0.08	0.19	0.11	0.03	0.06	0.20	0.16	0.43	0.11	0.04	0.28	0.55	0.10	0.13	0.44	0.39		0.08
<i>Lomandra sp.</i>				0.04	0.13						0.04		0.01			0.01		
<i>Lomandra sp.1</i>																		
<i>Lomandra spartea</i>		0.06	0.13		0.18	0.21	0.09		0.04		0.13	0.09	0.04	0.11	0.13	0.06		
<i>Loxocarya cinerea</i>				0.01				0.15		0.10	0.13	0.01			0.28			
<i>Lysimachia arvensis</i>																		
<i>Macrozamia riedlei</i>	0.06	0.06	0.04			0.04	0.11	0.11	0.04		0.03		0.14	0.10		0.05	0.29	0.03
<i>Macrozamia riedlei (seedling)</i>																		
<i>Marianthus drummondianus</i>																		
<i>Melaleuca parviceps</i>																		
<i>Melaleuca preissiana</i>																		
<i>Melaleuca viminea</i>																		
<i>Melaleuca viminea (seedling)</i>																		
<i>Mesomelaena graciliceps</i>																		
<i>Mesomelaena stygia</i>																		
<i>Mesomelaena tetragona</i>																		
<i>Microtis media</i>																	0.30	
<i>Millotia tenuifolia</i>				0.10									0.04					
<i>Mirbelia dilatata</i>																		
<i>Monotaxis grandiflora</i>													0.03					
<i>Monotaxis grandiflora var. grandiflora</i>																		
<i>Monotaxis occidentalis</i>																		
<i>Neurachne alopecuroidea</i>											0.04				0.13			0.01
<i>Opercularia apiciflora</i>														0.01			0.06	0.06
<i>Opercularia echinocephala</i>	0.04	0.45		0.06		0.01	0.04	0.13					0.03			0.03		
<i>Opercularia hispidula</i>																		
<i>Opercularia sp.</i>																		
<i>Opercularia vaginata</i>					0.01													
<i>Orchidaceae sp.</i>																		
<i>Orchidaceae sp. 1</i>																		
<i>Orchidaceae sp. 2</i>																		
<i>Orianthera serpyllifolia</i>		0.09												0.01				
<i>Oxalis corniculata</i>																		
<i>Paspalidium sp.?</i>																		
<i>Patersonia babianoides</i>														0.03	0.01	0.04		

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Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Rytidosperma acerosum</i>																		
<i>Rytidosperma caespitosum</i>															0.19			
<i>Rytidosperma setaceum</i>																		
<i>Rytidosperma sp.</i>																		
<i>Scaevola calliptera</i>	0.01		0.03	0.03	0.11						0.01			0.03		0.03		0.04
<i>Scaevola pilosa</i>																		
<i>Scaevola sp.</i>																		
<i>Senecio diaschides</i>																		
<i>Senecio hispidulus</i>													0.06					
<i>Senecio quadridentatus</i>																		
<i>Senecio sp.</i>																		
<i>Senecio sp.1</i>																		
<i>Sonchus oleraceus</i>																		
<i>Sowerbaea laxiflora</i>					0.01													
* <i>Sphaerolobium linophyllum</i>																		
<i>Sphaerolobium macranthum</i>																		
<i>Sphaerolobium medium</i>														0.01				
<i>Sphaerolobium sp.</i>																		
<i>Stackhousia monogyne</i>																		
<i>Stirlingia latifolia</i>																		
<i>Stylidium amoenum</i>		0.04	0.14	0.09		0.09									0.03	0.05		
<i>Stylidium androsaceum</i>						0.03												
<i>Stylidium brunonianum</i>																		
<i>Stylidium bulbiferum</i>																		
<i>Stylidium calcaratum</i>		0.01						0.01					0.18					
<i>Stylidium ciliatum</i>																		
<i>Stylidium hirsutum</i>																		
<i>Stylidium hispidum</i>															0.10			
<i>Stylidium junceum</i>										0.04		0.01			0.01			
<i>Stylidium lateriticola</i>																		
<i>Stylidium lineatum</i>																		
<i>Stylidium piliferum</i>		0.65			0.01	0.05	0.05	0.10								0.01		
<i>Stylidium recurvum</i>																		
<i>Stylidium repens</i>																		
<i>Stylidium rhynchocarpum</i>																		
<i>Stylidium scabridum</i>																		
<i>Stylidium scariosum</i>																		
<i>Stylidium schoenoides</i>					0.01													
<i>Stylidium sp.</i>																		
<i>Stylidium sp. 1</i>																		
<i>Styphelia discolor</i>														0.01				
* <i>Styphelia hispida</i>																		
<i>Styphelia nitens</i>		0.03			0.01		0.03	0.03	0.01	0.04	0.04			0.01				
<i>Styphelia pallida</i>		0.03			0.14	0.08		0.03		0.03								
<i>Styphelia propinqua</i>								0.01					0.01					0.01

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Species	JD134	JD135	JD78	JD79	JD80	JD81	JD82	JD83	JD84	JD85	JD86	JD87	JD88	FMP001	FMP002	FMP003	FMP004	FMP005	FMP006	FMP007	FMP008	FMP009	FMP010
<i>Billardiera fraseri</i>						0.01																	
<i>Billardiera fusiformis</i>					0.01																		
<i>Boronia crenulata</i>																							
<i>Boronia crenulata subsp. viminea</i>																							
<i>Boronia fastigiata</i>	0.54	0.04	0.09	0.03	0.21	0.03	0.04	0.01	0.10			0.08	0.24		2.07	1.56	1.00	2.27	1.00	1.00	1.00	1.00	1.50
<i>Bossiaea aquifolium</i>		0.01												1.67	1.50	1.67	1.43	1.33	2.00	1.50			
<i>Bossiaea ornata</i>			0.61	0.25	0.06	0.16	0.04	0.03	0.03		0.21	3.68	0.15	1.25	2.33	1.40		1.83	1.50	1.00	1.00	2.10	2.08
<i>Bossiaea spinescens</i>																							
<i>Bossiaea eriocarpa</i>																							
<i>Brachyscome pusilla</i>																							
<i>Briza minor</i>	0.03																						
<i>Burchardia congesta</i>	0.14	0.44	1.89	2.03	0.58	0.59		0.04			0.06		1.36							1.00		3.00	
<i>Caladenia flava</i>	0.09	0.03	0.12	0.26	0.03	0.01	0.05		0.28	0.14	0.03		0.17										
<i>Caladenia macrostylis</i>			0.03																				
<i>Caladenia reptans</i>						0.09		0.09															
<i>Caladenia sp.</i>																							
* <i>Caladenia sp. 1</i>																							
<i>Calothamnus quadrifidus</i>		0.00																					
<i>Calothamnus sp.</i>																							
<i>Cassytha glabella</i>	0.36	0.06								0.08													
<i>Cassytha sp.</i>																							
<i>Caustis dioica</i>																							
<i>Centaurium erythraea</i>		0.69																					
<i>Centrolepis aristata</i>							0.23																
<i>Chamaescilla corymbosa</i>									1.31			1.06			2.00		6.00						10.00
<i>Chorizema cordatum</i>														1.00		1.00		1.00	2.00	2.00			
<i>Chorizema rhombeum</i>																							
<i>Clematis pubescens</i>	0.01	0.18	0.08	0.06				0.01		0.67	0.11		0.46								1.59	1.50	
<i>Comesperma virgatum</i>	0.13	0.03	0.06	0.07	0.11	0.03	0.03	0.03				0.03	0.02				1.00						1.00
<i>Comesperma sp.</i>																							
* <i>Conospermum capitatum</i>						0.01																	
<i>Conospermum scaposum</i>																							
<i>Conostylis aculeata</i>								0.01				0.01	0.09										
<i>Conostylis setigera</i>														1.00	1.78	1.17	1.57	2.33		2.50		1.00	2.31
<i>Conostylis setosa</i>						0.03	2.06	0.01	0.17			0.65		1.00	1.25		1.60	1.00		1.00			
<i>Conostylis pusilla</i>																							
<i>Conostylis serrulata</i>	0.01				0.03	0.13	0.00	0.01				0.21											
<i>Corymbia calophylla</i>			0.20	1.91		0.05	0.09	0.21	0.09	0.41	0.18	0.21	0.51	1.00			1.75	1.17	2.08	1.64	1.28	1.00	1.00
<i>Corymbia calophylla (seedling)</i>																							
<i>Craspedia variabilis</i>																					3.50		
<i>Cryptandra arbutiflora var. arbutiflora</i>																							
<i>Cryptostylis ovata</i>			0.11																				
<i>Cyanicula sericea</i>			0.06					0.05															
<i>Cyathochaeta avenacea</i>		0.05	0.11	0.17	0.17	3.78	2.58	1.99	2.01			3.19	0.29	1.00	2.00	3.00	4.17	3.83	3.14			2.25	
<i>Cyperaceae sp.</i>																		1.00					

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Species	JD134	JD135	JD78	JD79	JD80	JD81	JD82	JD83	JD84	JD85	JD86	JD87	JD88	FMP001	FMP002	FMP003	FMP004	FMP005	FMP006	FMP007	FMP008	FMP009	FMP010
<i>Rytidosperma acerosum</i>																							
<i>Rytidosperma caespitosum</i>																							
<i>Rytidosperma setaceum</i>					0.03																		
<i>Rytidosperma</i> sp.																							
<i>Scaevola calliptera</i>	0.23		0.64	0.46	0.09	0.54	0.08	0.34	0.60	0.48	0.05	0.06	0.34				1.00			1.00		1.40	2.00
<i>Scaevola pilosa</i>										0.02													
<i>Scaevola</i> sp.																							
<i>Senecio diaschides</i>		0.09																					
<i>Senecio hispidulus</i>								0.13	0.16														
<i>Senecio quadridentatus</i>		0.01																					
<i>Senecio</i> sp.																							
<i>Senecio</i> sp.1																							
<i>Sonchus oleraceus</i>					0.01	0.01			0.03														
<i>Sowerbaea laxiflora</i>																							
* <i>Sphaerolobium linophyllum</i>			0.01				0.17		0.01														
<i>Sphaerolobium macranthum</i>																							
<i>Sphaerolobium medium</i>	0.30																						
<i>Sphaerolobium</i> sp.																							
<i>Stackhousia monogyne</i>																						1.00	
<i>Stirlingia latifolia</i>																							
<i>Stylidium amoenum</i>					0.42			0.24	0.03		0.24			3.00		1.00	1.00	4.00	2.00			6.00	
<i>Stylidium androsaceum</i>																4.00							
<i>Stylidium brunonianum</i>																							
<i>Stylidium bulbiferum</i>					0.01												1.00		1.00				1.00
<i>Stylidium calcaratum</i>				0.38		0.06		0.15		0.25				1.00						6.00			
<i>Stylidium ciliatum</i>															5.00				3.00	1.00			
<i>Stylidium hirsutum</i>																							
<i>Stylidium hispidum</i>	0.64	0.06					2.31	0.61	2.15														
<i>Stylidium junceum</i>																							
<i>Stylidium lateriticola</i>					0.13			0.11				0.04						1.00					
<i>Stylidium lineatum</i>																	2.00						
<i>Stylidium piliferum</i>						0.01		0.34						2.50	3.75	1.00	3.00	1.33	1.00	5.50		1.00	1.00
<i>Stylidium recurvum</i>																							
<i>Stylidium repens</i>																							
<i>Stylidium rhynchocarpum</i>																							
<i>Stylidium scabridum</i>																							
<i>Stylidium scariosum</i>																							
<i>Stylidium schoenoides</i>			0.06		0.04		0.06																
<i>Stylidium</i> sp.																							
<i>Stylidium</i> sp. 1																							
<i>Styphelia discolor</i>		0.00	0.03	0.02		0.01				0.01										2.00		1.00	
* <i>Styphelia hispida</i>																		2.00					2.50
<i>Styphelia nitens</i>			0.00				0.20										1.00						
<i>Styphelia pallida</i>											0.04	0.01	0.03		1.50	1.50							
<i>Styphelia propinqua</i>	0.04	0.01	0.01	0.07		0.01	0.13						0.00	1.00	2.00		1.33	1.00	1.00				1.00

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Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
* <i>Gompholobium sp.1</i>									1.00	2.00				1.00								
<i>Gompholobium tomentosum</i>								1.00		2.00												
<i>Gonocarpus cordiger</i>																						
<i>Gonocarpus sp.</i>																						
<i>Goodenia sp.1</i>							2.00															
<i>Goodenia trinervis</i>				12.76												3.00						
<i>Grevillea bipinnatifida</i>							1.33															
<i>Grevillea pulchella</i>																1.00						1.67
<i>Grevillea quercifolia</i>																						
<i>Grevillea synapheae</i>																						
<i>Grevillea wilsonii</i>		2.25			1.00		1.00	4.25	2.27				2.00			4.00		1.00				1.00
<i>Haemodoraceae sp.</i>																						
<i>Haemodorum laxum</i>																						3.50
<i>Haemodorum sp.</i>		1.00		3.64	1.50		3.50	1.00			1.00	1.00	1.00		1.00							3.00
<i>Haemodorum sp. 1</i>				3.00			3.00					1.00			2.00	1.50						4.00
<i>Haemodorum sp. 2</i>																1.33						
<i>Haemodorum spicatum</i>																						
<i>Hakea amplexicaulis</i>																						
<i>Hakea cyclocarpa</i>							3.07	2.00														
<i>Hakea lissocarpha</i>							1.00	1.00	1.00							1.00						2.00
<i>Hakea prostrata</i>																1.83						
<i>Hakea ruscifolia</i>																			1.00			
<i>Hakea varia</i>				1.50															2.00			
<i>Hemiantra pungens</i>																					2.00	
<i>Hemiantra pungens</i>									3.29							3.00						
<i>Hemigenia pritzelii</i>								2.00														
<i>Hibbertia acerosa</i>	1.00									1.33		1.83										1.00
<i>Hibbertia amplexicaulis</i>	2.14	1.00	4.11		2.63	3.00	3.00	1.60		3.56		2.71	1.00				2.63		2.67	1.00	1.00	
<i>Hibbertia commutata</i>		1.50	3.64		1.57	2.38	3.14	2.63	1.60	1.33		1.33	1.80		1.00		3.50	4.43	5.60	1.67		
<i>Hibbertia commutata (seedling)</i>								4.00														
<i>Hibbertia huegelii</i>				1.00								1.56										2.00
<i>Hibbertia hypericoides</i>	1.33		2.00				2.38	6.47							2.08				1.45	2.63	4.06	3.71
<i>Hibbertia lasiopus</i>																						
<i>Hibbertia lineata</i>							5.00															
<i>Hibbertia ovata</i>																						
<i>Hibbertia perfoliata</i>			2.00										1.67					3.75		3.00	1.80	3.20
<i>Hibbertia quadricolor</i>		2.28																				
<i>Hibbertia racemosa</i>																						
<i>Hibbertia sp.</i>										2.00												
<i>Hibbertia striata</i>												1.00										
<i>Hovea chorizemifolia</i>	1.75		1.00		1.29			2.00	1.00	1.44		1.40	1.80	2.00	1.00			1.00				
<i>Hovea trisperma</i>							3.00			1.00			1.00									
<i>Hyalosperma cotula</i>				79.40																3.00	7.50	
<i>Hybanthus calycinus</i>																						
<i>Hybanthus floribundus</i>						1.00	1.00								2.00			2.00				

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: All data is plants/m² and rounded to 2 decimals places (so if 0.00 then value is < 0.01)

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Hybanthus floribundus subsp. floribundus</i>														2.00	2.14						1.00	
<i>Hydrocotyle callicarpa</i>																						
<i>Hypocalymma angustifolium</i>				2.67	1.00		8.95			1.00		1.00				3.00	2.00		1.00	1.00	1.00	
<i>Hypochaeris glabra</i>			2.00	2.00							6.00	1.00							7.29	6.60		
<i>Hypolaena exsulca</i>							17.00				164.29											
<i>Isolepis marginata</i>																					6.00	
<i>Isotropis cuneifolia</i>				3.40												1.00						
<i>Jacksonia alata</i>																3.00						
<i>Juncus bufonius</i>																						
<i>Kennedia coccinea</i>			1.60		1.00	1.00		3.67	3.00				1.00	2.87	1.00		1.71	2.67		1.00	1.83	2.00
<i>Kennedia prostrata</i>			2.86												1.50	1.00		1.75	2.46	2.09		
<i>Kingia australis</i>							5.41															
<i>Kunzea glabrescens</i>							1.00															
<i>Kunzea recurva</i>							2.40															
<i>Labichea punctata</i>	1.00	1.00								1.00		2.00										
<i>Lachnagrostis filiformis</i>																						
<i>Lagenophora huegelii</i>			1.00			1.00																
<i>Lasiopetalum floribundum</i>		1.00			2.50	3.07				4.29	2.00	1.00	1.00	4.00	1.00			1.50	2.50	1.00	2.81	3.00
<i>Lasiopetalum glabratum</i>								2.50														3.25
<i>Lasiopetalum glutinosum</i>																						
<i>Laxmannia squarrosa</i>																6.00				2.00		
<i>Lechenaultia biloba</i>	1.00				4.00	1.00	2.57	1.25	2.00		1.00			2.00	5.00	1.75		1.00			1.20	2.00
<i>Lepidobolus preissianus subsp. preissianus</i>																12.40						
<i>Lepidosperma leptostachyum</i>																						
<i>Lepidosperma longitudinale</i>											15.00											
<i>Lepidosperma pubisquamum</i>			2.00	4.00			4.00															3.50
<i>Lepidosperma sp.</i>				20.67								3.00									1.00	4.00
<i>Lepidosperma sp.1</i>			3.00			6.25									1.67							5.00
<i>Lepidosperma squamatum</i>							11.00			3.00				4.00	1.60	2.00	1.00		1.00		1.50	1.75
<i>Lepidosperma tenue</i>	3.00						2.00	6.60	3.50	1.83												
* <i>Leporella fimbriata</i>																						
<i>Leptocarpus coangustatus</i>																						
<i>Leptomeria cunninghamii</i>														1.00	1.00							
<i>Leptospermum erubescens</i>																		2.33				
<i>Leucopogon australis</i>																						
<i>Leucopogon capitellatus</i>			10.40		1.00	1.00	1.00														1.00	
* <i>Leucopogon parviflorus</i>											1.50											
<i>Leucopogon sprengeloides</i>																4.70						
<i>Leucopogon verticillatus</i>	2.00					1.00								1.00				1.00				
<i>Levenhookia pusilla</i>				10.00			10.00		1.00												3.00	
<i>Levenhookia stipitata</i>																						
<i>Lindsaea linearis</i>							1.00															
<i>Lobelia sp.</i>											2.00											
<i>Lomandra brittanii</i>						3.00	1.00		2.00													
<i>Lomandra caespitosa</i>			7.00		1.00	1.75	4.00			2.50			1.00	1.00				2.90	1.20		5.33	4.67

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: All data is plants/m² and rounded to 2 decimals places (so if 0.00 then value is < 0.01)

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Lomandra drummondii</i>																					1.00	
<i>Lomandra hermaphrodita</i>	4.00	1.00	1.00	2.00	2.58	1.86	2.50	2.86	2.36	2.60		2.22	1.00	1.83	1.78		3.79	3.38	1.50		2.00	2.83
<i>Lomandra integra</i>																						
<i>Lomandra micrantha</i>	1.00					4.00	4.00	5.00	2.00	2.00				1.00						1.00		
<i>Lomandra micrantha subsp. micrantha</i>														2.00								
<i>Lomandra nigricans</i>						3.00											5.60	1.00		4.43		
<i>Lomandra odora</i>														2.00								
<i>Lomandra preissii</i>						2.00	1.88	1.50	4.00	1.75		2.33	1.00	1.00							2.75	2.20
<i>Lomandra purpurea</i>																						
<i>Lomandra sericea</i>																						
<i>Lomandra sonderi</i>	1.00	2.55	3.33		2.78	1.20		4.14	3.83	4.77		7.36	7.75	1.63			3.00	2.00	1.00		4.00	
<i>Lomandra sp.</i>	1.00	1.00	1.00	1.00			1.50			1.33										4.33		
<i>Lomandra sp.1</i>															1.00							
<i>Lomandra spartea</i>	1.50	1.00			1.33	1.50	2.29	1.00	2.00	8.17		1.00	6.10	1.50	2.00	1.33	2.00				1.50	1.50
<i>Loxocarya cinerea</i>						1.00			1.00	4.70	3.00	3.25	2.00	3.00								
<i>Lysimachia arvensis</i>																20.00						
<i>Macrozamia riedlei</i>		1.00	2.09		1.00	1.38				1.00	1.50		1.00	1.00					1.00	1.00	1.25	1.00
<i>Macrozamia riedlei (seedling)</i>						3.00																
<i>Marianthus drummondianus</i>																						
<i>Melaleuca parviceps</i>																3.00						
<i>Melaleuca preissiana</i>																						
<i>Melaleuca viminea</i>				4.77																		
<i>Melaleuca viminea (seedling)</i>				7.00																		
<i>Mesomelaena graciliceps</i>																					1.00	
<i>Mesomelaena stygia</i>				11.00																		
<i>Mesomelaena tetragona</i>				8.13																		
<i>Microtis media</i>																						
<i>Millotia tenuifolia</i>																26.50			15.63	14.17		
<i>Mirbelia dilatata</i>						2.60	1.00				5.00											
<i>Monotaxis grandiflora</i>																						
<i>Monotaxis grandiflora var. grandiflora</i>									2.00						1.00						6.00	6.50
<i>Monotaxis occidentalis</i>																						
<i>Neurachne alopecuroidea</i>	2.00		1.33	1.00	1.00	2.50	11.00			1.00	6.83	1.80	3.00	2.67	2.00	5.13	2.00	1.00	1.50		1.00	2.20
<i>Opercularia apiciflora</i>																						
<i>Opercularia echinocephala</i>			4.37	1.00	2.00	4.82	6.50	1.50	4.00	2.00	1.00				2.40		10.56	6.85	7.00	10.63	2.00	3.00
<i>Opercularia hispidula</i>																						
<i>Opercularia sp.</i>										2.00	2.00											
<i>Opercularia vaginata</i>																						
<i>Orchidaceae sp.</i>														1.00								
<i>Orchidaceae sp. 1</i>														1.83								
<i>Orchidaceae sp. 2</i>																1.00						
<i>Orianthera serpyllifolia</i>																						
<i>Oxalis corniculata</i>																						
<i>Paspalidium sp.?</i>															2.00							
<i>Patersonia babianoides</i>			1.50		1.00	1.00	1.00	2.00	2.00	2.50		1.25	1.50		1.33			2.25	2.00			1.50

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: All data is plants/m² and rounded to 2 decimals places (so if 0.00 then value is < 0.01)

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Patersonia juncea</i>				8.89																		3.00
<i>Patersonia occidentalis</i>			2.00	1.67			2.00	1.60	1.00					1.00		1.00	1.50		2.25	1.00		1.67
<i>Patersonia pygmaea</i>				13.00								1.00				1.67						1.00
<i>Patersonia rudis</i>							1.50	2.43	2.00			3.50					5.00					
* <i>Pentapeltis peltigera</i>	1.00	3.80	5.00		1.00	2.40	4.00	1.86	4.83	4.00	2.00	4.73		4.74			2.60	1.50	1.50		3.88	2.25
<i>Pericalymma ellipticum</i>				1.20					1.00							4.80						
<i>Persoonia elliptica</i>																						
<i>Persoonia longifolia</i>			1.00		1.00	1.50				1.00										1.00	2.00	
<i>Persoonia longifolia</i> (seedling)		1.00				1.00																
<i>Persoonia</i> sp.																						
<i>Petrophile macrostachya</i>																						1.00
<i>Philotheca spicata</i>							1.33												1.00			
<i>Philydrella drummondii</i>				1.83																		
<i>Phyllanthus calycinus</i>	6.09	1.00			4.38	1.00				2.75		2.55				1.00	3.63	1.50		2.65		
<i>Pimelea ciliata</i>							2.00									3.50	1.00					
<i>Pimelea lehmanniana</i>																						
<i>Pimelea</i> sp.																1.00						
<i>Pimelea suaveolens</i>	1.00						6.00								1.00	1.00	2.33		1.33		1.00	2.00
<i>Platysace commutata</i>	2.86	1.67	5.89		5.30	7.92	2.00		1.00	1.00		14.18					3.20	3.50		11.22		1.00
<i>Platysace compressa</i>																						
<i>Platysace filiformis</i>																						
<i>Platysace tenuissima</i>																						
<i>Poaceae</i> sp.																						
<i>Podolepis capillaris</i>				9.33																		
<i>Podotheca angustifolia</i>																			5.00			1.00
<i>Podotheca gnaphalioides</i>																20.00						
<i>Poranthera microphylla</i>																					13.50	2.40
<i>Prasophyllum elatum</i>																						
<i>Prasophyllum</i> sp.																						
<i>Prasophyllum</i> sp.1					1.00			1.00								1.00						
<i>Pseudognaphalium luteoalbum</i>																						
<i>Pteridium esculentum</i>						4.11					1.67			3.10						3.67		
<i>Pterochaeta paniculata</i>									16.43												5.00	2.00
* <i>Pterostylis barbata</i>																						
* <i>Pterostylis pyramidalis</i>																						
* <i>Pterostylis recurva</i>																						
<i>Pterostylis</i> sp.	1.00	1.00																				
<i>Pterostylis</i> sp. 1														1.00	1.00							
<i>Pterostylis vittata</i>																						
<i>Ptilotus drummondii</i>																						
<i>Ptilotus drummondii</i> var. <i>drummondii</i>																						
<i>Ptilotus manglesii</i>									3.00	5.00						1.83	2.50					2.00
<i>Pyrorchis nigricans</i>																						
<i>Ranunculus colonorum</i>																						
<i>Restionaceae</i> sp.																1.00						

APPENDIX J1: SUMMARY OF DENSITY ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

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Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Styphelia tenuiflora</i>							1.50	1.00						1.00					1.00			
<i>Synaphea</i> sp.							2.00															
<i>Taxandria linearifolia</i>										10.00												
<i>Tetraria capillaris</i>			1.00		5.17	4.00	5.00	9.33	2.00	3.80		1.50	4.29									
<i>Tetraria octandra</i>			2.00			3.25	3.36	2.00	2.67		2.00	6.50	1.00		1.00	1.00	1.00		2.67		7.38	6.29
<i>Tetraria</i> sp. Jarrah Forest (R. Davis 7391)	7.57	2.54	2.00		2.20	2.50	9.00	8.33	15.00	11.45		3.00	26.50	1.50	5.71	5.20	3.50	2.82	3.25	1.75	8.75	8.00
<i>Tetrarrhena laevis</i>	1.50	1.00	1.80		1.00	2.00	4.25		3.00	3.00	1.00	2.60	1.00	2.50		1.50	1.00	1.00		2.00	1.33	
<i>Tetradlea hirsuta</i>			2.00		4.00			1.33		1.25		1.00	1.00	2.29	1.00			1.43			1.75	2.00
<i>Thelymitra crinita</i>										1.00	1.33	1.00										
<i>Thelymitra macrophylla</i>																						
<i>Thelymitra</i> sp.								1.00		1.00	1.00											
<i>Thomasia paniculata</i>								2.00			1.89											
<i>Thysanotus</i> ? <i>scaber</i>									1.00	4.00							1.50					6.50
<i>Thysanotus dichotomus</i>																						
<i>Thysanotus fastigiatus</i>						1.00							2.00			2.00						
<i>Thysanotus manglesianus</i>																				1.80		
<i>Thysanotus multiflorus</i>			2.25		1.20	1.75	3.50		2.00	1.67	1.50			4.13	3.33	4.00	5.40	3.50	1.00	3.00	3.00	7.60
<i>Thysanotus patersonii</i>						1.00		2.00														
<i>Thysanotus</i> sp.						1.00			1.00									1.00				
<i>Thysanotus</i> sp.1					1.50			1.00		1.00					1.00	2.67			1.00			2.00
<i>Thysanotus sparteus</i>																						
<i>Thysanotus tenellus</i>																						
<i>Thysanotus thyrsoides</i>								3.00	1.00	1.00										1.50	1.40	
<i>Trachymene pilosa</i>		1.75				1.00										1.00			6.33	3.83	2.00	
<i>Trichocline spathulata</i>	2.40	2.50		2.00	2.00	2.00		2.00	3.40	3.38		2.67	4.75	3.33	1.50	2.33	1.33	3.00			5.00	1.67
<i>Tricoryne elatior</i>			16.22	4.00	5.00	8.14					3.33	14.60									1.67	
<i>Tricoryne humilis</i>																						2.67
<i>Trifolium dubium</i>																						
<i>Tripterococcus brunonis</i>																2.00		2.00				6.25
<i>Trymalium ledifolium</i>	5.50					1.00		5.70	2.00	1.71					1.00	4.00						
<i>Trymalium odoratissimum</i>	2.00						3.00															
<i>Trymalium odoratissimum</i> subsp. <i>odoratissimum</i>																						
<i>Utricularia multifida</i>				9.60																		
<i>Vulpia myuros</i>																						
<i>Wahlenbergia preissii</i>																				3.00		
<i>Xanthorrhoea gracilis</i>	1.50	1.50			5.50	2.88		2.45	1.57	2.56	2.00	1.75	1.00	3.09			3.50		1.00		1.89	1.00
<i>Xanthorrhoea preissii</i>				1.80			3.55	1.00	2.50	1.00	4.83	3.50	4.00	1.33		1.00			1.00		1.00	1.00
<i>Xanthosia atkinsoniana</i>	1.00	1.00			4.00	1.60			11.86	4.71	1.00	2.00					2.14	5.11		1.50	1.00	
<i>Xanthosia candida</i>	2.00				2.75		10.36	4.90	7.10	3.20			1.50	4.40	1.60	2.60	4.92	2.00		2.60	7.27	3.00
<i>Xanthosia ciliata</i>																						
<i>Xanthosia huegelii</i>				4.50		1.00	3.00	3.00								2.00	3.00		10.38	4.00	2.00	
<i>Xanthosia singuliflora</i>																						
<i>Xylomelum occidentale</i>																				3.56		

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Drosera microphylla</i>																		
<i>Drosera pallida</i>			0.05									0.00	0.01	0.01	0.00	0.00		
<i>Drosera platystigma</i>																		
<i>Drosera pulchella</i>																		
<i>Drosera</i> sp.	0.05	0.58			0.16	0.35		0.32					0.00	0.01	0.00	0.01		
<i>Drosera</i> sp. (climbing)																		
<i>Drosera</i> sp. 1																		
<i>Drosera</i> sp. 2																		
<i>Drosera stolonifera</i>						0.50												
<i>Elythranthera brunonis</i>																		
<i>Empodisma gracillimum</i>																		
* <i>Erigeron sumatrensis</i>																		
<i>Eriochilus dilatatus</i>												0.00						
<i>Eriochilus scaber</i>																		
<i>Eriochilus tenuis</i>																		
<i>Eucalyptus marginata</i>	14.21	6.69	7.50	23.38	1.54	5.88	3.87	12.29	1.42	71.70	23.32	26.96	24.81	22.15	12.97	53.17	33.03	22.94
<i>Eucalyptus marginata</i> (seedling)																		
<i>Eucalyptus megacarpa</i>																		
<i>Eucalyptus patens</i>																		
<i>Eucalyptus patens</i> (seedling)																		
<i>Eucalyptus rudis</i>																		
<i>Eucalyptus</i> sp.					0.14	8.30												
<i>Euchiton sphaericus</i>																		
<i>Gahnia decomposita</i>																		
<i>Gastrolobium ebracteolatum</i>																		
<i>Gastrolobium spinosum</i>																		
<i>Gastrolobium villosum</i>																		
<i>Glischrocaryon aureum</i>																		
<i>Gompholobium capitatum</i>																		
<i>Gompholobium cyaninum</i>				0.03														
<i>Gompholobium knightianum</i>			3.40			1.50								0.01				

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Note: if cover is 0.00 then value is <0.01

Species	HU1040	HU1041	HU1042	HU1043	HU1044	HU1045	HU1046	HU1047	HU1048	HU1049	HU1050	HU1075	HU1076	HU1077	HU1078	HU1079	HU1080	HU1081
<i>Leucopogon capitellatus</i>					0.30	11.00					0.20			0.29	0.00	0.01		0.05
<i>Leucopogon hirsutus</i>																		
<i>Leucopogon parviflorus</i>																		
<i>Leucopogon sprengeioides</i>																		
<i>Leucopogon verticillatus</i>					6.10					2.00	1.30			0.19		0.02		
<i>Levenhookia pusilla</i>				0.03			1.00						0.00		0.01			
<i>Levenhookia stipitata</i>																		
<i>Lindsaea linearis</i>																		
<i>Liparophyllum capitatum</i>																		
<i>Lobelia gibbosa</i>																		
<i>Lobelia</i> sp.																		
<i>Lomandra brittanii</i>													0.00	0.00				
<i>Lomandra caespitosa</i>	27.60	2.53	1.20	8.63	0.50	2.00	0.32	1.82	3.12	8.10	29.10	0.51	0.33	0.05	0.01	0.03	0.00	0.39
<i>Lomandra drummondii</i>		7.35							0.20									
<i>Lomandra hermaphrodita</i>	1.01	0.20	9.00	0.32	2.90	7.70	2.43	1.01	0.43	3.70	0.32	0.03	0.05		0.03	0.01		
<i>Lomandra integra</i>																		
<i>Lomandra micrantha</i>														2.05	0.03	0.82		0.37
<i>Lomandra micrantha</i> subsp. <i>micrantha</i>																		
<i>Lomandra nigricans</i>			4.00									0.00	0.00			0.01		
<i>Lomandra odora</i>			1.90		0.40	0.10												
<i>Lomandra preissii</i>	3.20						0.30	1.00				0.01	0.01			0.02	0.11	
<i>Lomandra purpurea</i>							0.30											
<i>Lomandra sericea</i>		0.07														0.00	0.01	
<i>Lomandra sonderi</i>	3.50	7.80	6.60	0.80	1.00	19.60	1.00	20.50	4.20	6.70	35.50	1.61	0.02	0.37	0.98	1.44		0.40
<i>Lomandra</i> sp.				0.01	3.20						0.80		0.00			0.00		
<i>Lomandra</i> sp.1																		
<i>Lomandra sparteae</i>		0.60	5.10		3.80	17.50	4.10		0.08		4.50	0.01	0.06	0.01	0.14	0.01		
<i>Loxocarya cinerea</i>				0.01				0.60		1.20	6.35	0.00			0.11			
<i>Lyperanthus serratus</i>																		
<i>Lysimachia arvensis</i>																		
<i>Macrozamia riedlei</i>	33.50	34.50	9.00			57.00	42.60	82.40	13.00		7.10		2.20	2.83		0.98	13.10	1.01

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	JD134	JD135	JD78	JD79	JD80	JD81	JD82	JD83	JD84	JD85	JD86	JD87	JD88	FMP001	FMP002	FMP003	FMP004	FMP005	FMP006	FMP007	FMP008	FMP009	FMP010
<i>Drosera microphylla</i>						0.00																	
<i>Drosera pallida</i>	0.03		0.05		0.01	0.00		0.22	0.04			0.01											
<i>Drosera platystigma</i>							0.01																
<i>Drosera pulchella</i>																							
<i>Drosera</i> sp.																0.04			0.10			0.20	
<i>Drosera</i> sp. (climbing)																							
<i>Drosera</i> sp. 1																							
<i>Drosera</i> sp. 2																							
<i>Drosera stolonifera</i>							0.05			0.05													
<i>Elythranthera brunonis</i>																							
<i>Empodisma gracillimum</i>																							
* <i>Erigeron sumatrensis</i>		0.01																					
<i>Eriochilus dilatatus</i>					0.00			0.00	0.01		0.00												
<i>Eriochilus scaber</i>																							
<i>Eriochilus tenuis</i>																							
<i>Eucalyptus marginata</i>			51.90	35.71	19.86	14.87	0.19	1.08	0.89	35.67	21.71	44.12	60.29	28.17	23.54	16.01	31.50	36.15	22.55	13.16	23.47	30.79	14.21
<i>Eucalyptus marginata</i> (seedling)																							
<i>Eucalyptus megacarpa</i>																							
<i>Eucalyptus patens</i>																							
<i>Eucalyptus patens</i> (seedling)																							
<i>Eucalyptus rudis</i>																							
<i>Eucalyptus</i> sp.																		0.15					0.46
<i>Euchiton sphaericus</i>																							
<i>Gahnia decomposita</i>																							
<i>Gastrolobium ebracteolatum</i>																							
<i>Gastrolobium spinosum</i>																							
<i>Gastrolobium villosum</i>																							0.10
<i>Glischrocaryon aureum</i>									0.03			0.02											
<i>Gompholobium capitatum</i>																							
<i>Gompholobium cyaninum</i>																							0.50
<i>Gompholobium knightianum</i>							0.01					0.10					0.20						0.50

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	JD134	JD135	JD78	JD79	JD80	JD81	JD82	JD83	JD84	JD85	JD86	JD87	JD88	FMP001	FMP002	FMP003	FMP004	FMP005	FMP006	FMP007	FMP008	FMP009	FMP010
<i>Gompholobium marginatum</i>	0.03						0.00		0.01								0.24	0.10				0.20	
<i>Gompholobium polymorphum</i>			0.02			0.02	0.29		0.07					0.20	0.20	0.70	0.19	0.10				0.18	
<i>Gompholobium preissii</i>	0.30	0.29				0.03	0.13		0.09			0.27					0.75			0.20			0.26
<i>Gompholobium tomentosum</i>																							
<i>Gompholobium</i> sp.																							
<i>Gompholobium</i> sp.1																							
<i>Gonocarpus benthamii</i>																							
<i>Gonocarpus cordiger</i>																						0.20	
<i>Gonocarpus</i> sp.																	0.05						
<i>Goodenia</i> sp.1																							
<i>Goodenia trinervis</i>																							
<i>Grevillea bipinnatifida</i>																							
<i>Grevillea pulchella</i>																							
<i>Grevillea quercifolia</i>							0.24																
<i>Grevillea synapheae</i>						0.07																	
<i>Grevillea variifolia</i>																							
<i>Grevillea wilsonii</i>	0.13					4.76																	3.00
<i>Haemodorum laxum</i>			0.00										0.00			18.56		15.00					
<i>Haemodocum spicatum</i>							0.01																
<i>Haemodorum</i> sp.																							
<i>Haemodorum</i> sp. 1																							
<i>Haemodorum</i> sp. 2																							
Haemodoraceae sp.																0.10					0.20		
<i>Hakea amplexicaulis</i>																							
<i>Hakea cyclocarpa</i>												0.61											
<i>Hakea lissocarpa</i>				0.05					0.22		0.11											1.20	
<i>Hakea prostrata</i>																							
<i>Hakea ruscifolia</i>					0.82		0.69					0.92											
<i>Hakea varia</i>																							
<i>Hemiandra pungens</i>																							
<i>Hemigenia pritzelii</i>			0.00		0.01	0.00							0.00			0.75							

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	JD134	JD135	JD78	JD79	JD80	JD81	JD82	JD83	JD84	JD85	JD86	JD87	JD88	FMP001	FMP002	FMP003	FMP004	FMP005	FMP006	FMP007	FMP008	FMP009	FMP010
<i>Leucopogon capitellatus</i>	0.24	0.42	1.92	5.91	0.55			0.25		0.22	2.69		3.96	4.13				0.63	2.00			2.20	
<i>Leucopogon hirsutus</i>																							
<i>Leucopogon parviflorus</i>																							
<i>Leucopogon sprengelioides</i>																							
<i>Leucopogon verticillatus</i>			1.01	1.28	1.02					0.75	0.66		0.10	1.00				1.50					
<i>Levenhookia pusilla</i>	0.00						0.50	0.01	0.02						0.10	0.10	0.08					0.13	0.05
<i>Levenhookia stipitata</i>																						0.05	
<i>Lindsaea linearis</i>								0.67															
<i>Liparophyllum capitatum</i>																							
<i>Lobelia gibbosa</i>																							
<i>Lobelia</i> sp.																							
<i>Lomandra brittanii</i>	0.04		0.00						0.03			0.01											
<i>Lomandra caespitosa</i>	0.03			0.09	0.02		0.34	0.01	0.46	0.01	0.01	0.01	0.05										
<i>Lomandra drummondii</i>	0.36	0.50	1.10	2.35	1.82		0.06	1.43	0.36	1.05	1.09	0.05				1.00		0.80			1.38		0.10
<i>Lomandra hermaphrodita</i>	0.07		0.08	0.05	0.07	0.02	0.43	0.03	0.15	0.01	0.08	0.36	0.12	0.66	0.59	1.40	0.38	0.30	0.21	0.47	0.40	0.63	0.28
<i>Lomandra integra</i>							0.00																
<i>Lomandra micrantha</i>			0.27	0.00	0.50						0.00			2.27				1.59	0.34			0.50	
<i>Lomandra micrantha</i> subsp. <i>micrantha</i>																							
<i>Lomandra nigricans</i>			1.41	0.10	0.20	0.00		0.01		0.07	0.11		0.19			0.50				0.50	0.50	0.10	
<i>Lomandra odora</i>	0.07	0.08			0.03		0.47	0.19	0.03			0.00	0.02										
<i>Lomandra preissii</i>	0.02	0.02	0.00	0.00	0.09	0.09		0.05	0.05	0.01	0.05	0.04	0.16		0.10	1.53	0.90			0.20	1.33		
<i>Lomandra purpurea</i>									0.03			0.16											
<i>Lomandra sericea</i>																							
<i>Lomandra sonderi</i>			0.50		1.09	0.82	5.21	0.51	1.66			2.61	0.23	4.00	2.41	3.25	3.50	3.00	1.60	4.50	0.50	1.50	1.65
<i>Lomandra</i> sp.																1.50				0.80	1.00	0.50	
<i>Lomandra</i> sp.1																							
<i>Lomandra spartea</i>				0.00	0.12			0.09	0.02			0.01		0.63	1.28	0.18	0.39	0.83		0.40			0.45
<i>Loxocarya cinerea</i>					2.22	0.46																	
<i>Lyperanthus serratus</i>																							
<i>Lysimachia arvensis</i>		0.00																					
<i>Macrozamia riedlei</i>	10.98	5.55	3.88	1.67	1.10			1.33		2.59	1.67		4.17	0.33	2.50	0.50	1.00		9.33	27.50	18.21	3.75	

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Astartea scoparia</i>				3.00							11.50					8.50			2.00			
* Asteraceae sp.				0.01																		
<i>Austrostipa elegantissima</i>																						
<i>Austrostipa mollis</i>																0.50						
<i>Austrostipa</i> sp.							0.01															
* <i>Avena fatua</i>																						
<i>Babingtonia camphorosmae</i>																						
<i>Banksia bipinnatifida</i>																					2.25	
<i>Banksia dallaneyi</i> subsp. <i>dallaneyi</i> var. <i>da</i>	7.66	2.60				13.84	1.50	0.80	0.69	0.15	2.53	1.43			1.88	4.78	1.15	1.90	3.16	4.00	4.76	0.74
<i>Banksia fraseri</i>																						
<i>Banksia grandis</i>		2.74	3.56		14.08	7.03		8.20	4.43	25.00			1.05		6.33		2.25	7.53		20.00		
<i>Banksia grandis</i> (seedling)	0.01	2.50			5.17				0.02													
<i>Banksia littoralis</i>											60.00											
<i>Banksia sessilis</i>	0.54	1.00						2.00														
<i>Banksia sphaerocarpa</i>																						
<i>Baumea juncea</i>																						
<i>Billardiera floribunda</i>											25.00				25.00							
<i>Billardiera variifolia</i>							75.00	575.00														
<i>Billardiera fraseri</i>																						
<i>Billardiera fusiformis</i>										0.05												
<i>Billardiera</i> sp.1															0.30							
<i>Boronia crenulata</i>											12.66											
<i>Boronia crenulata</i> subsp. <i>viminea</i>											7.10											
<i>Boronia fastigiata</i>	0.06	0.44	0.08		0.28			0.10	0.53	0.06		0.05	0.01	0.01			0.92	1.02			0.50	0.05
<i>Boronia molloyae</i>																						
<i>Bossiaea aquifolium</i>									0.06			0.05										
<i>Bossiaea ornata</i>		0.01	0.62		0.30	0.01		0.14	0.02	0.02		0.02	0.06	0.63	0.24	0.10		0.49		0.53	0.31	0.43
<i>Bossiaea eriocarpa</i>																						
<i>Bossiaea spinescens</i>																						1.20
<i>Brachyscome pusilla</i>																			0.95			
* <i>Briza minor</i>																0.10						

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Bulbine semibarbata</i>																						
<i>Burchardia congesta</i>																						
<i>Caladenia flava</i>	0.02																0.40		0.17			
<i>Caladenia macrostylis</i>																						
<i>Caladenia reptans</i>																						
<i>Caladenia sp.</i>	0.01				0.01			0.02	0.01	0.01		0.01										
<i>Caladenia sp. 1</i>	0.01																					
<i>Calothamnus quadrifidus</i>																						
<i>Calothamnus sp.</i>																				5.00		
<i>Cassytha glabella</i>																						
<i>Cassytha racemosa</i>																						
<i>Cassytha sp.</i>											0.75											
<i>Caustis dioica</i>							0.69															
* <i>Centaurium erythraea</i>																						
<i>Centella asiatica</i>																						
<i>Centrolepis drummondiana</i>																						
<i>Centrolepis aristata</i>				1.27																0.01		
<i>Chamaescilla corymbosa</i>	0.05	0.26						0.35							0.18	1.00		0.10	0.02		0.16	0.06
<i>Chorizema cordatum</i>						0.03	0.20	0.10	0.05			0.05										
<i>Chorizema ilicifolium</i>																						
<i>Chorizema rhombeum</i>	0.40																					
<i>Clematis pubescens</i>						0.04											1.48			0.92	0.10	
<i>Comesperma calymega</i>																						
<i>Comesperma virgatum</i>													0.02									
<i>Comesperma sp.</i>		0.02																				
<i>Conospermum capitatum</i>																						
<i>Conospermum scaposum</i>																				0.50		
<i>Conostylis aculeata</i>																						
<i>Conostylis setigera</i>	0.03	0.12			0.04	0.05	0.15	0.03	0.03	0.10	0.30	0.09							0.20			0.26
<i>Conostylis setosa</i>	0.31	0.19						0.10		0.07		0.12			0.70							1.09
<i>Conostylis pusilla</i>															0.63	0.50			1.13	0.20	0.50	

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Hibbertia acerosa</i>	0.02									0.03		0.02										0.25
<i>Hibbertia amplexicaulis</i>	0.05	0.02	0.31		0.08	0.05	0.02	0.04		0.06		0.10	0.02				0.78		0.67	0.55	0.50	
<i>Hibbertia commutata</i>		0.80	0.78		0.03	0.05	1.77	0.16	0.46	0.04		0.01	0.33	0.01			0.63	1.27	4.32	0.53		
<i>Hibbertia commutata</i> (seedling)								0.01														
<i>Hibbertia diamesogenos</i>																						
<i>Hibbertia huegelii</i>				0.13								0.21										12.50
<i>Hibbertia hypericoides</i>	0.04		0.10				1.61	11.66							4.15				1.97	4.47	7.50	4.19
<i>Hibbertia lasiopus</i>			0.14																			
<i>Hibbertia lineata</i>							6.50															
<i>Hibbertia ovata</i>																						
<i>Hibbertia perfoliata</i>			0.20										0.20				1.09		2.00	0.80	1.30	
<i>Hibbertia quadricolor</i>		1.53																				
<i>Hibbertia racemosa</i>																						
<i>Hibbertia</i> sp.										0.02												
<i>Hibbertia striata</i>												0.05										
<i>Hovea chorizemifolia</i>	0.03		0.20		0.03			0.04	0.02	0.02		0.02	0.05	0.34	0.30			0.18				
<i>Hovea trisperma</i>							0.02			0.01			0.06									
<i>Hyalosperma cotula</i>				1.72																0.05	0.08	
<i>Hybanthus calycinus</i>																						
<i>Hybanthus debilissimus</i>																						
<i>Hybanthus floribundus</i>						0.01	0.01								0.02			0.20				
<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>														0.40	0.36						0.10	
<i>Hydrocotyle callicarpa</i>																						
<i>Hypocalymma angustifolium</i>				5.67	0.02		5.32			0.10		0.07				3.40	0.50		1.00	0.25	4.00	
<i>Hypocalymma cordifolium</i>																						
* <i>Hypochoeris glabra</i>			0.20	0.01							0.10	0.01							0.55	0.56		
<i>Hypolaena exsulca</i>							5.51				15.29											
<i>Isolepis marginata</i>																					0.21	
<i>Isotoma hypocrateriformis</i>																						
<i>Isotropis cuneifolia</i>				0.03												0.10						
<i>Jacksonia alata</i>																0.80						

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Leucopogon capitellatus</i>	0.20		7.32		0.06	0.01	0.01													4.00		
<i>Leucopogon hirsutus</i>																						
<i>Leucopogon parviflorus</i>											0.76											
<i>Leucopogon sprengelioides</i>																0.50						
<i>Leucopogon verticillatus</i>	0.02					0.01								4.00				0.01				
<i>Levenhookia pusilla</i>				0.04			0.05		0.01												0.02	
<i>Levenhookia stipitata</i>																						
<i>Lindsaea linearis</i>							0.01															
<i>Liparophyllum capitatum</i>																						
<i>Lobelia gibbosa</i>																						
<i>Lobelia</i> sp.											0.03											
<i>Lomandra brittanii</i>							0.02	0.01	0.02													
<i>Lomandra caespitosa</i>			0.83		0.10	0.51	0.02			0.08			0.02	0.10				0.92	0.74		3.00	3.17
<i>Lomandra drummondii</i>																					0.50	
<i>Lomandra hermaphrodita</i>	0.02	0.20	0.01	0.14	0.04	0.05	0.08	0.03	0.05	0.09		0.02	0.01	0.36	0.59		0.61	0.50	0.13		0.26	0.34
<i>Lomandra integra</i>																						
<i>Lomandra micrantha</i>	0.02					0.04	0.04	0.05	0.02	0.03				1.75							1.00	
<i>Lomandra micrantha</i> subsp. <i>micrantha</i>														6.50								
<i>Lomandra nigricans</i>						0.05											3.00	0.50			2.50	
<i>Lomandra odora</i>														0.20								
<i>Lomandra preissii</i>						0.02	0.05	0.03	1.50	0.18		0.03	0.01	0.10							4.00	0.76
<i>Lomandra purpurea</i>																						
<i>Lomandra sericea</i>																						
<i>Lomandra sonderi</i>	0.01	1.08	2.15		2.67	0.56		1.00	1.30	2.40		1.47	2.10	1.66				2.53	1.60	2.00		0.30
<i>Lomandra</i> sp.	0.02	0.01	0.01	0.01			0.02			0.02											4.17	
<i>Lomandra</i> sp.1															0.10							
<i>Lomandra sparteae</i>	0.06	0.35			0.03	0.06	0.07	0.01	0.02	0.26		0.12	0.74	0.53	0.34	0.15	0.30				0.61	0.78
<i>Loxocarya cinerea</i>						0.01			0.10	0.13	0.65	0.10	0.23	0.43								
<i>Lyperanthus serratus</i>																						
<i>Lysimachia arvensis</i>																2.25						
<i>Macrozamia riedlei</i>		5.00	10.51		17.88	9.70				3.01	4.15		5.43	20.40				2.65	0.25	9.10	1.00	

APPENDIX J2: SUMMARY OF FOLIAGE COVER ON PERMANENT PLOTS IN MYARA NORTH SURVEY AREA AND NEARBY MYARA REGION

Note: if cover is 0.00 then value is <0.01

Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Macrozamia riedlei</i> (seedling)						0.01																
<i>Marianthus drummondianus</i>																						
<i>Melaleuca incana</i>																						
<i>Melaleuca parviceps</i>																17.56						
<i>Melaleuca preissiana</i>				15.00																		
<i>Melaleuca viminea</i>				0.37																		
<i>Melaleuca viminea</i> (seedling)				0.32																		
<i>Mesomelaena graciliceps</i>																					0.40	
<i>Mesomelaena stygia</i>				2.50																		
<i>Mesomelaena tetragona</i>				2.50																		
<i>Microtis media</i>																						
<i>Millotia tenuifolia</i>																0.44			0.26	0.29		
<i>Mirbelia dilatata</i>						0.25	2.00				0.11											
<i>Monotaxis grandiflora</i>																						
<i>Monotaxis grandiflora</i> var. <i>grandiflora</i>									0.02						0.10						1.00	0.23
<i>Monotaxis occidentalis</i>																						
<i>Neurachne alopecuroidea</i>	0.02		0.08	0.03	0.02	0.04	0.31			0.04	0.11	0.02	0.10	1.20	0.25	0.32	0.40	0.11	0.08		0.10	0.20
<i>Olx benthamiana</i>																						
<i>Opercularia apiciflora</i>																						
<i>Opercularia echinocephala</i>			0.24	0.01	0.03	0.10	0.04	0.01	0.04	0.03	0.01				0.28		1.76	1.10	0.77	2.28	0.05	0.50
<i>Opercularia hispidula</i>																						
<i>Opercularia vaginata</i>																						
<i>Opercularia</i> sp.										0.01	0.02											
Orchidaceae sp.														0.01								
Orchidaceae sp. 1														0.08								
Orchidaceae sp. 2																0.10						
<i>Orianthera serpyllifolia</i>																						
* <i>Oxalis compressa</i>																						
* <i>Oxalis corniculata</i>																						
<i>Paraserianthes lophantha</i>																						
<i>Paspalidium</i> sp.?															0.20							

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<i>Patersonia babianooides</i>			0.02		0.01	0.01	0.01	0.02	0.02	0.03		0.01	0.02		0.14			0.28	0.10			0.07
<i>Patersonia juncea</i>				2.84																		0.35
<i>Patersonia occidentalis</i>			0.80	0.20			0.48	0.98	0.74					0.65		0.01	0.26		1.68	0.80		1.30
<i>Patersonia pygmaea</i>				4.00			0.04					0.05				0.18						0.30
<i>Patersonia rudis</i>							0.13	0.71	0.50			0.08					1.75					
<i>Pentapeltis peltigera</i>	0.01	0.09	0.50		0.01	0.02	0.04	0.02	0.03	0.03	0.03	0.05		0.64			0.38	0.15	0.28		0.23	0.38
<i>Pericalymma ellipticum</i>				0.22			1.70		3.00							17.25						
<i>Persoonia elliptica</i>																						
<i>Persoonia longifolia</i>			1.50		2.00	1.25				0.50										0.73	1.50	
<i>Persoonia longifolia</i> (seedling)		1.00				1.00																
<i>Persoonia</i> sp.																						
<i>Petrophile macrostachya</i>																						0.60
<i>Pheladenia deformis</i>																						
<i>Philothea spicata</i>							0.24												2.50			
<i>Philydrella drummondii</i>				0.05																		
<i>Philydrella pygmaea</i>																						
<i>Phyllangium paradoxum</i>																						
<i>Phyllanthus calycinus</i>	4.81	0.01			3.04	4.00				7.65		1.12				0.01	3.59	2.25		4.56		
<i>Pimelea cillata</i>							0.05									1.96	0.10					
<i>Pimelea lehmanniana</i>																						
<i>Pimelea suaveolens</i>	0.01						0.09								0.20	0.05	0.57		1.50		2.00	0.10
<i>Pimelea</i> sp.																0.10						
<i>Plantago lanceolata</i>																						
<i>Platysace commutata</i>																						
<i>Platysace compressa</i>	0.36	0.02	0.48		0.15	0.27	0.02		0.01	0.01		0.10					0.27	0.40		7.02		0.10
<i>Platysace filiformis</i>																						
<i>Platysace tenuissima</i>																						
Poaceae sp.																						
<i>Podolepis capillaris</i>				0.05																		
<i>Podotheca angustifolia</i>																			0.08			0.03
<i>Podotheca gnaphalioides</i>																0.10						

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Species	MY001	MY002	MY003	MY004	MY005	MY006	MY007	MY008	MY009	MY010	MY011	MY012	MY013	MY014	MY015	MY016	MY017	MY018	MY019	MY020	MY021	MY022
<i>Poranthera microphylla</i>																					0.11	0.03
<i>Prasophyllum brownii</i>																						
<i>Prasophyllum elatum</i>																						
<i>Prasophyllum</i> sp.															0.10							
<i>Prasophyllum</i> sp.1					0.01			0.01														
<i>Pseudognaphalium luteoalbum</i>																						
<i>Pteridium esculentum</i>						6.98					1.70			7.26						5.00		
<i>Pterochaeta paniculata</i>									0.08												0.05	0.02
<i>Pterostylis barbata</i>																						
<i>Pterostylis pyramidalis</i>																						
<i>Pterostylis recurva</i>																						
<i>Pterostylis vittata</i>																						
<i>Pterostylis</i> sp.	0.01	0.01																				
<i>Pterostylis</i> sp. 1														0.01	0.10							
<i>Ptilotus drummondii</i>																						
<i>Ptilotus drummondii</i> var. <i>drummondii</i>																						
<i>Ptilotus manglesii</i>									0.03	0.10					0.24	0.18						0.45
<i>Pyrorchis nigricans</i>																						
<i>Ranunculus colonorum</i>																						
<i>Ranunculus muricatus</i>																						
Restionaceae sp.																1.20						
<i>Rytidosperma acerosum</i>																					0.37	
<i>Rytidosperma caespitosum</i>		0.02		0.02	0.10		0.01															0.10
<i>Rytidosperma setaceum</i>																						
<i>Rytidosperma</i> sp.							0.02															
<i>Scaevola calliptera</i>	0.02					0.03	0.02	0.11	0.50	0.01		0.02		0.36		0.20	0.75			0.19	0.66	0.85
<i>Scaevola</i> sp.			0.11			0.02																
<i>Scaevola pilosa</i>																						
<i>Senecio diaschides</i>																		0.06	0.53	1.00		
<i>Senecio hispidulus</i>																						
<i>Senecio</i> sp.				0.10															0.55	2.00		

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<i>Thysanotus</i> sp.						0.01			0.01									0.01				
<i>Thysanotus</i> sp.1					0.01			0.01		0.01					0.10	0.53			0.20			0.06
<i>Thysanotus sparteus</i>																						
<i>Thysanotus tenellus</i>																						
<i>Thysanotus thyrsoideus</i>								0.03	0.01	0.01										0.06	0.10	
<i>Trachymene pilosa</i>		0.01				0.01										0.01			0.16	0.08	0.05	
<i>Trichocline spathulata</i>	0.02	0.03		0.01	0.02	0.02		0.02	0.02	0.03		0.10	0.06	0.06	0.04	1.87	0.07	0.13			0.23	0.05
<i>Tricoryne elatior</i>			1.54	0.02	0.04	0.37					0.01	0.04									0.14	
<i>Tricoryne humilis</i>																						0.14
<i>Tripterococcus brunonis</i>																0.08		0.10				0.73
* <i>Trifolium dubium</i>																						
<i>Tripterococcus brunonis</i>																						
<i>Trymalium ledifolium</i>																						
<i>Trymalium odoratissimum</i>	2.63					0.01		0.95	0.02	0.23					0.01	2.75						
<i>Trymalium odoratissimum</i> subsp. <i>odoratissim</i>	0.01						0.30															
<i>Trymalium spatulatum</i>																						
<i>Utricularia multifida</i>				0.04																		
<i>Viminaria juncea</i>																						
* <i>Vulpia myuros</i>																						
<i>Wahlenbergia preissii</i>																				0.02		
<i>Wurmbea dioica</i>																						
<i>Xanthorrhoea gracilis</i>	2.66	2.83			3.09	3.29		2.54	1.20	2.81	2.17	2.46	0.13	13.95			9.50	2.00	12.00		4.31	4.00
<i>Xanthorrhoea preissii</i>				25.57			10.72	1.00	2.00	3.50	16.33	15.27	27.11	16.20		3.50			17.17		23.01	6.10
<i>Xanthosia atkinsoniana</i>	0.01	0.01			0.03	0.02			0.05	0.03	0.01	0.01					0.36	0.94		0.30	0.10	
<i>Xanthosia candida</i>	0.01				0.03		0.08	0.05	0.07	0.08			0.03	0.47	0.08	0.13	0.74	0.17		0.22	0.44	0.18
<i>Xanthosia ciliata</i>																						
<i>Xanthosia huegelii</i>				0.10		0.02	0.03	0.01								0.03	0.50		1.94	0.37	0.25	
<i>Xanthosia singuliflora</i>																						
<i>Xylomelum occidentale</i>			6.00																20.49			