
REVIEW
OF
FLORA AND VEGETATION
LOCATED IN THE
BODDINGTON GOLD MINE AND HEDGES LEASE AREAS

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1. SUMMARY

Flora

A total of 660 vascular plant taxa have been recorded on the Boddington Gold and Hedges lease areas. This total does not include the range of unidentified species at early stages of growth (*Acacia* sp.). The flora values in the Boddington area reflect the interface between the eastern sections of the northern Jarrah forest and the flora of the Wheatbelt region. Therefore the range of species is per area relatively higher than in the western Jarrah forest areas. The number of species is also a reflection of the range of site conditions from clay-loam valley systems to the upland lateritic hills to the shallow granitic soils associated with the greenstone belt.

Nevertheless there are only a few species that are restricted to the Boddington area. These are of local and regional significance and occur in plant communities associated with the shallow granitic soils. If representatives of these communities near the shallow granitic soils are protected the influence of any proposed development on the flora values will be minimal.

No endangered or vulnerable species, pursuant to s178 of the Environmental Protection and Biodiversity Conservation Act (1999) have been located on the Boddington Gold Mine lease areas.

There are nine Priority Flora species recorded on the Boddington Gold Mine lease areas. All of these species have been recorded in the native plant communities and *Templetonia drummondii* (P4), *Lasiopetalum cardiophyllum* (P4) and *Senecio leucoglossus* (P4) have been recorded in rehabilitation areas within the mining leases.

Some of the Priority species listed previously for the Boddington Gold Mine area have been removed from the Priority list because more populations have been located or have had their Priority ranking changed. These changes are predictable as the conservation status of the respective species changes in response to research.

The proposed expansion should not threaten any species as such, although avoidance of the shallow soils would minimise the impacts on the priority species.

Vegetation

The Boddington and Hedges lease areas occur within the Darling Botanical District of the South-western Botanical Province as recognized by Diels (1906) and later developed by Gardner (1942) and Beard (1979, 1980).

Previous workers have stressed the significance of the climate, landforms and soils in determining the distribution of plant communities in this area (Diels 1906; Williams 1932, 1942; Speck 1952, 1958; Lange 1960; Churchill 1961, 1968; Smith 1974; Seddon 1972; Havel 1968, 1975a, 1975b; Heddle *et al.* 1980a; Beard 1981, Mattiske and Havel 1998).

The vegetation at both the regional and local scales are presented in the attached figures. The regional vegetation complexes are based on the earlier work of Heddle *et al.* (1980) and Mattiske and Havel (1998).

A total of seven vegetation complexes were defined for the Boddington and Hedges lease areas, see Table below. The majority of these vegetation complexes are well represented in the conservation estate (based on data in the 2003 Forest Management Plan – Conservation Commission), namely:

| | |
|-------------------|---|
| Cooke (Ce) – | 34.85% of the 1750 pre-European representation in formal and informal reserves. |
| Dwellingup (D4) – | 26.14% of the 1750 pre-European representation in formal and informal reserves. |
| Pindalup (Pn) – | 35.10% of the 1750 pre-European representation in formal and informal reserves. |
| Michibin (Mi) – | 7.10% of the 1750 pre-European representation in formal and informal reserves. |
| Yalanbee (Y6) – | 22.91% of the 1750 pre-European representation in formal and informal reserves. |
| Swamp (S) – | 47.50% of the 1750 pre-European representation in formal and informal reserves. |
| Williams (Wi) – | 0.45% of the 1750 pre-European representation in formal and informal reserves. |

The vegetation complexes that are lower than 10% representation in formal and informal reserves reflect the extent of past agricultural clearing in the valley systems near Boddington. Any proposed development should avoid any impacts on the less well-represented vegetation complexes (i.e. Williams and Michibin). The representation of the vegetation complexes in the respective land swap areas are summarized in the following text. Areas 1 and 2 incorporate most of the vegetation complexes, with the exception of the latter three (Michibin, Williams and Yalanbee). Therefore Areas 1 and 2 are feasible offsets for the majority of the vegetation complexes.

The site-vegetation types, which were based on the earlier definitions by Havel (1975a and 1975b) were defined and mapped for the Boddington and Hedges lease areas by Mattiske Consulting Pty Ltd over a twenty year period. These site-vegetation types provide a more local and definitive reflection of local vegetation patterns. Although the majority of the areas under review (areas one to five) have been mapped, there is a small section in Area 5 that has not been mapped. The results still provide a basis for comparing areas.

A total of 21 site-vegetation types have been mapped for the Boddington and Hedges lease areas. As this level of mapping has not been undertaken over large areas of the southwest forest region one can only rely on local mapping and observations to assess the significance of the respective site-vegetation types. None of the site-vegetation types are restricted to the lease areas; however there is obvious variations in the proportion of the different site-vegetation types in the respective areas.

If one approaches the significance from a rarity of representation of the site-vegetation types then site types AX, B, DG, E and G3 should be protected wherever possible. Site-vegetation types B, DG, E and G3 occur in Area 1 and 2 which are proposed as an offset for the proposed expansion. These latter site-vegetation types are represented in the nearby reserves within the conservation estate near Mt Cooke and Mt Windsor (Monadnocks Reserve).

If the intent is to maximise the protection of flora values from a diversity perspective then A, AX, AY (swamps) and the G3, DG, HG, MG and YG (types associated with shallower soils) should be protected. Site-vegetation types A, G3, DG, HG, MG and YG occur in Area 1 and 2 which are proposed as an offset for the proposed expansion. These site-vegetation types are well represented in the nearby reserves within the conservation estate near Yarra Road (Wandoo reserve to north of Boddington) and southwards of the Boddington townsite within the State Forest areas.

If one approaches the protection of priority flora, then the latter types associated with the swamps and the shallower soils would achieve greatest coverage (except for the *Lasiopetalum cardiophyllum* and *Templetonia drummondii*, which occur on sandy-gravel P and PW types). Of these latter two species, *Lasiopetalum cardiophyllum* is the more geographically restricted, as it is mainly restricted to the Boddington area. Previous studies on this taxon have indicated that substantial populations occur south of Boddington in State Forest areas and therefore as a taxon it is not under immediate threat at this juncture. *Templetonia drummondii* occurs throughout a range of site-vegetation types and has been recorded southwards to Collie and westwards towards Dwellingup in both reserves and State forest areas. Both of the latter species have been recorded in rehabilitation areas near Boddington.

None of these plant communities are considered Threatened Ecological Communities pursuant to Schedule 2 of the Environment Protection and Biodiversity Conservation Act (1999) or according to English and Blyth (1997).

The site-vegetation types that have been cleared to date are summarized in the following text. Of these the more significant site-vegetation types include the G3 and G4 communities, which support a range of priority species and the site-vegetation type L, which is poorly represented in the conservation estate.

From a diversity of site-vegetation types Areas 1 and 3 include the larger range of site-vegetation types. None of the site-vegetation types are restricted to the Boddington area within the Boddington and Hedges lease areas. The majority of the site-vegetation types as recorded are represented in the conservation estate within the northern and eastern Jarrah forest. The most restricted site-vegetation types include G4 and L site-vegetation types in a local and regional context. Site-vegetation type L is poorly represented in the conservation estate.

The vegetation within the northern part of the survey area supports slightly different flora, as there are extensive areas of sand and sandy gravel soils, which strongly influence the species composition.

The proposed land swap appears to be an option at this junction as a large range of site-vegetation types and the associated species are represented in Area 1. An additional offset could be the protection of the Michibin and Williams vegetation complexes and the protection of the G3, G4 and L site-vegetation types in the wider Boddington area. The restricted occurrence of the Michibin and Williams vegetation complexes and the L site-vegetation type in less disturbed areas has resulted from the early clearing activities for agriculture. Therefore the main concern appears to relate to the shallower soils that support a range of Priority flora species and locally restricted communities (namely G3 and G4).

2. INTRODUCTION

2.1 Flora

Species of flora and fauna are defined as rare or priority conservation status where their populations are restricted geographically or threatened by local processes, Table 1. The Department of Conservation and Land Management recognizes these threats of extinction and consequently applies regulations towards population and species protection. Rare Flora species are gazetted under subsection 2 of section 23F of the Wildlife Conservation Act (1950) and therefore it is an offence to “take” or damage rare flora without Ministerial approval. Section 23F of the Wildlife Conservation Act (1950) defines “to take” as “... to gather, pick, cut, pull up, destroy, dig up, remove or injure the flora to cause or permit the same to be done by any means.”

Table 1: Definition of Rare and Priority Flora Species (Department of Conservation and Land Management, 2002)

Note: In other sections of the report these codes are referred to as the SCC – State Conservation Code

| Conservation Code | Category |
|-------------------|--|
| R | Declared Rare Flora – Extant Taxa “Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection and have been gazetted as such.” |
| P1 | Priority One – Poorly Known Taxa “Taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat. Such taxa are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey.” |
| P2 | Priority Two – Poorly Known Taxa “Taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as ‘rare flora’, but urgently need further survey.” |
| P3 | Priority Three – Poorly Known Taxa “Taxa which are known from several populations, and the taxa are not believed to be under immediate threat (i.e. not currently endangered), either due to the number of known populations (generally >5), or known populations being large, and either widespread or protected. Such taxa are under consideration for declaration as ‘rare flora’ but need further survey.” |
| P4 | Priority Four – Rare Taxa “Taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5-10 years.” |

In regard to Priority Flora, caution still should be exercised, as Priority Flora are under consideration for declaration as ‘rare flora’, but are in urgent need of further survey (Priority One to Three) or require monitoring every 5-10 years (Priority Four). Table 1 presents the definitions of Declared Rare and the four Priority ratings under the Wildlife Conservation Act (1950) as extracted from Department of Conservation and Land Management (2003). Table 2 presents the definitions of the categories of threatened species under the Environmental Protection and Biodiversity Conservation Act (1999).

Table 2: Categories of Threatened Flora Species (Environmental Protection and Biodiversity Conservation Act, 1999)

(www.ea.gov.au/biodiversity/threatened/species/index.html)

Note: In other sections of the report these codes are referred to as the FCC – Federal Conservation Code

| Category Code | Category |
|---------------|--|
| Ex | <p>Extinct</p> <p>Taxa for which there is no reasonable doubt that the last member of the species has died.</p> |
| ExW | <p>Extinct in the Wild</p> <p>Taxa which are known only to survive in cultivation, in captivity or as naturalised populations well outside past ranges; or have not been recorded in known and/or expected habitats, at appropriate seasons, anywhere in past ranges, despite exhaustive surveys over time frames appropriate to their life cycles and forms.</p> |
| CE | <p>Critically Endangered</p> <p>Taxa which face an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.</p> |
| E | <p>Endangered</p> <p>Taxa which are not critically endangered and face a very high risk of extinction in the wild in the immediate or near future, as determined in accordance with the prescribed criteria.</p> |
| V | <p>Vulnerable</p> <p>Taxa which are not critically endangered or endangered and face a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.</p> |
| CD | <p>Conservation Dependent</p> <p>Taxa which are the foci of specific conservation programs, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.</p> |

2.2 Local and Regional Significance

The Environmental Protection Authority (2004) in Guidance Statement 51 stated that species, subspecies, varieties, hybrids and ecotypes may be significant other than as Declared Rare Flora or Priority Flora, for a variety of reasons, including:

- “. a keystone role in a particular habitat for threatened species, or supporting large populations representing a significant proportion of the local regional population of a species;
- . relic status;
- . anomalous features that indicate a potential new discovery;
- . being representative of the range of a species (particularly, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- . the presence of restricted subspecies, varieties, or naturally occurring hybrids;
- . local endemism/a restricted distribution;
- . being poorly reserved.”

Plant communities or vegetation may be significant for a range of reasons, other than a statutory listing as a Threatened Ecological Community or because the extent is below a threshold level. The Environmental Protection Authority (2004) in Guidance Statement 51 stated that significant vegetation may include communities that have:

- “. scarcity;
- . unusual species;
- . novel combinations of species;
- . a role as a refuge;
- . a role as a key habitat for threatened species or large populations representing a significant proportion of the local to regional total population of a species;
- . being representative of the range of a unit (particularly, a good local and/or regional example of a unit in “prime” habitat, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range);
- . a restricted distribution.”

The application of the degree of significance may apply at a range of scales.

Plant communities may be referred to as locally significant where the presence of Priority Flora species has been recorded, where they provide a range extension of particular taxa from previously recorded locations, or where they are very restricted to one or two locations or where they occur as small isolated communities. In addition, communities that exhibit unusually high structural and species diversity are also of local significance (Mattiske EM, pers. comm.). Plant communities may be referred to as regionally significant where they are limited to specific landform types, are uncommon or restricted plant community types within the regional context, or support populations of Declared Rare Flora (Mattiske EM, pers. comm.).

2.3 Threatened Ecological Communities

Communities are described as ‘Threatened Ecological Communities’ (TEC’s) if they have been defined by the Western Australian Threatened Ecological Communities Scientific Advisory Committee and found to be Presumed Totally Destroyed (PD), Critically Endangered (CR), Endangered (EN) or Vulnerable (VU). For definitions of TEC categories and criteria refer to English and Blyth (1997, 1999). Selected plant communities have also been listed as “Threatened Ecological Communities” under the EPBC Act (1999). The TEC’s at the national level are defined on the Environment Australia website (www.ea.gov.au).

3. OBJECTIVES

Mattiske Consulting have been requested by Newmont Australia on behalf of the Boddington Gold Mine Company Pty Ltd to review the flora and vegetation in the vicinity of their gold mining operations at Boddington. In particular, this review was required to provide comment on the flora values of an area of uncleared private land being considered for addition to the conservation estate in exchange for the loss of vegetation due to their mining in state forest.

4. METHODS

4.1 Flora

The following information was extracted from the data collected for Worsley Alumina Pty Ltd and Alcoa World Alumina Australia, from records held at the State Herbarium and from the observations of the botanists from Mattiske Consulting Pty Ltd.

Species

Family

Taxonomic History

State Conservation Status: as defined by Wildlife Conservation Act (1950) and listings as published by the Department of Conservation and Land Management (2003).

Federal Conservation Code: as defined by EPBC Act (1999).

Description: as extracted from botanical publications.

Vegetation: as extracted from work undertaken by Worsley Alumina Pty Ltd (Phase Two) and from botanical studies undertaken by E M Mattiske in forested areas since 1976, E.M.Mattiske and Associates (1987 to 1994) and Mattiske Consulting Pty Ltd (1994 – 2004) for Worsley Alumina Pty Ltd and Alcoa from State Herbarium records.

Site-vegetation Types: as extracted from work undertaken by Worsley Alumina Pty Ltd (Phase Two) and from botanical studies undertaken by E.M.Mattiske and Associates (1987 to 1994) and Mattiske Consulting Pty Ltd (1994 – 2004) for Worsley Alumina Pty Ltd and Alcoa World Alumina Australia (Hedges area) and from student projects undertaken on behalf of Worsley Alumina Pty Ltd.

Plant Abundance: extracted from data as collected by Mattiske Consulting Pty Ltd team for Worsley Alumina Pty Ltd (1987 to 2001) and from State Herbarium and Florabase records as published and prepared by the Department of Conservation Land Management.

Soil Types: as extracted from data collected for Worsley Alumina Pty Ltd and from observations by the field teams.

Topography: as extracted from data collected for Worsley Alumina Pty Ltd and from observations by the field teams.

Localities: extracted from data as collected by Mattiske Consulting Pty Ltd team for Worsley Alumina Pty Ltd (1987 to 2002) and from State Herbarium and Florabase records as published and prepared by the Department of Conservation Land Management.

Distribution within Worsley Alumina's Bauxite Lease: extracted from data as collected by Mattiske Consulting Pty Ltd team for Worsley Alumina Pty Ltd (1987 to 2002) and from State Herbarium and Florabase records as published and prepared by the Department of Conservation Land Management.

5. RESULTS AND DISCUSSION

A total of 660 vascular plant taxa have been recorded on the Boddington Gold and Hedges lease areas. This total does not include the range of unidentified species at early stages of growth (*Acacia* sp.). The flora values in the Boddington area reflect the interface between the eastern sections of the northern Jarrah forest and the flora of the Wheatbelt region. Therefore the range of species is per area relatively higher than in the western Jarrah forest areas. The number of species is also a reflection of the range of site conditions from clay-loam valley systems to the upland lateritic hills to the shallow granitic soils associated with the greenstone belt.

Nevertheless there are only a few species that are restricted to the Boddington area. These are of local and regional significance and occur in plant communities associated with the shallow granitic soils. If representatives of these communities near the shallow granitic soils are protected the influence of any proposed development on the flora values will be minimal.

No endangered or vulnerable species, pursuant to s178 of the Environmental Protection and Biodiversity Conservation Act (1999) have been located on the Boddington Gold Mine lease areas.

There are nine Priority Flora species recorded on the Boddington Gold Mine lease areas and these are listed in Table 1. All of these species have been recorded in the native plant communities and *Templetonia drummondii* (P4), *Lasiopetalum cardiophyllum* (P4) and *Senecio leucoglossus* (P4) have been recorded in rehabilitation areas within the mining leases.

Table 3: Summary of Priority Species Recorded on Boddington Gold Mine Lease

| Species | State Conservation Status |
|---|---------------------------|
| <i>Acacia gemina</i> | P2 |
| <i>Eucalyptus latens</i> | P4 |
| <i>Gastrolobium</i> sp. Prostrate Boddington (M. Hislop 2130) | P1 |
| <i>Halgania corymbosa</i> | P3 |
| <i>Lasiopetalum cardiophyllum</i> | P4 |
| <i>Senecio leucoglossus</i> | P4 |
| <i>Stenanthemum coronatum</i> | P3 |
| <i>Stylidium marradongense</i> | P3 |
| <i>Templetonia drummondii</i> | P4 |

There have been several changes in the conservation status of some species recorded on the Boddington Gold Mine lease areas:

1. *Eucalyptus aspersa* is no longer a Priority species
2. *Calothamnus pallidifolius* is no longer a Priority species
3. *Dryandra polycephala* specimens re-identified as *Dryandra squarrosa* subsp. *squarrosa*
4. *Hibbertia silvestris* is no longer a Priority species.
5. *Lasiopetalum cardiophyllum* has changed from a Priority 2 to a Priority 4 species.
6. *Lasiopetalum glabratum* is no longer a Priority species.
7. *Synaphea damopsis* is no longer a Priority species.
8. *Verticordia huegelii* var. *decumbens* is no longer a Priority species.

Some of the species listed above have either been recently removed from the Priority list because more populations have been located or have had their Priority ranking changed. These changes are predictable as the conservation status of the respective species changes in response to research. It is recommended that as part of the annual reporting process a brief summary be provided on any changes in taxonomic nomenclature and conservation status.

The follow priority species only occur in the Boddington Bauxite Mine lease areas:

1. *Asteridea gracilis* has changed from a Priority 1 to a Priority 3.
2. *Boronia tenuis* Priority 4.
3. *Calytrix simplex* subsp. *simplex* Priority 1.
4. *Cryptandra polyclada* subsp. *polyclada* Priority 3.
5. *Dryandra subpinnatifida* var. *imberbis* Priority 2 (former name *Dryandra subpinnatifida*)
6. *Grevillea pimeleoides* Priority 4.
7. *Pithocarpa corymbulosa* Priority 2
8. *Pultenaea skinneri* Priority 4.
9. *Stenanthemum intropubens* ms Priority 1.
10. *Stenanthemum tridentatum* Priority 4 (former name *Spyridium oligocephalum*)
11. *Tetratheca pilifera* Priority 3.

The proposed expansion will not threaten any species as such, although avoidance of the shallow soils would minimise the impacts on the priority species.

5.1 *Acacia gemina*

Family: *Acacia gemina* belongs to the family Mimosaceae

Taxonomic History: This taxon was previously included under the species *Acacia deflexa* but recognised as a new species in 1999. Geminus = Latin for twin-born or paired (due to close affinity to *A. deflexa*). This species has been recorded at Mt Saddleback and the former *Acacia deflexa* recorded in the Worsley Bauxite Mine Phase Two Study is *Acacia gemina*. Both *Acacia deflexa* (P3) and *Acacia gemina* (P2) occur near and south of Boddington.

State Conservation Status: Priority Two (Table 2).

Federal Conservation Code: Not listed nationally.

Description:

Erect, open shrub; 0.4-1.2m high
 Bark smooth, medium grey
 New growth whitish-green with bronze tinge
 Phyllodes 10-30 x 3-6mm
 Flowers yellow, 3-4mm diameter
 Pods 20-50 x 2mm
 Seeds 2 x 1.3 x 1mm, dull black, areole minute
 Flowering August to October, mature pods late December-early January

Vegetation:

Heath with emergent trees including *Melaleuca preissiana* on the wetter areas and *Eucalyptus wandoo* on the drier sites (A, AY - 11W2).

Eucalyptus drummondii low woodland on lower and mid-slopes (G3 - 23HDc).

Margin of open forest/woodlands of *Eucalyptus marginata* – *Corymbia calophylla* and *Banksia grandis* (ST - 19JBg).

Shrubland/heath/mallees with *Eucalyptus wandoo*, *Eucalyptus drummondii*, *Leptospermum erubescens*, *Banksia sphaerocarpa* var. *sphaerocarpa*, *Dryandra armata*, *Gastrolobium* sp. and *Melaleuca pungens*.

Proteaceous-Myrtaceous heath in Jarrah woodland (H, HG - 19JPs).

Open heath dominated by *Dryandra squarrosa* subsp. *squarrosa* (G3 - 23HDc).

Open heath dominated by *Hakea undulata* (G1 – 22Hhu).

Site-vegetation Types:

The site-vegetation types as defined by Mattiske and based on the earlier system of Havel (1975a and 1975b) are summarized as codes A to Z and combinations thereof in the brackets above.

The mapping codes as developed by Arthur Weston (mixture of a number and letters – e.g. 11W1, 23HDc) for Worsley Alumina Pty Ltd and Dames and Moore (1981), and as mapped by Mattiske for Worsley Alumina Pty Ltd (1985) in the brackets above.

Plant Abundance:

This species occurrence varies from occasional to frequent with small local areas.

Soil Types:

Lateritic gravel or loam.

Brown sandy laterite over granite.

Deep sand (outlying Hyden population)

Topography:

Variable from drainage lines and gullies to ridges and on shallow outcrop areas.

Localities:

Most collections are from either within or near the Boyagin Rock Nature Reserve or the Saddleback Timber Reserve. Several collections from outside of this area are from near Narrogin (c. 70km east of Boddington), Corrigin and 35km E of Billericay (near Hyden). The outlying population near Hyden occurs in deep sand.

Distribution within Boddington Gold Mine:

Only recorded from rehabilitated areas where it was seeded.

Management Recommendations:

This species has been seeded previously. As this species is a seeder it is worth collecting and returning the seed to the rehabilitation areas.

5.2 *Eucalyptus latens*

Family: *Eucalyptus latens* belongs to the family Myrtaceae

Taxonomic History:

During the earlier surveys this species was referred to as *Eucalyptus foecunda*. More recent taxonomic revision has now recognised this taxon as *Eucalyptus latens*.

State Conservation Status: - Priority Four (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Mallee 2-4m high

Juvenile leaves sessile and glaucous, adult leaves petiolate, glossy green.

Flowers white

Flowers January-March

Vegetation:

Shrubland - heath

Heath

Woodland of *Eucalyptus wandoo* and *Corymbia calophylla*

Woodland of *Eucalyptus wandoo*

Woodland of *Eucalyptus accedens*

Woodland of *Eucalyptus wandoo* and *Eucalyptus astringens*

Open woodland of mixed eucalypts

Open heath with scattered eucalypts

Forest of *Eucalyptus marginata* and *Corymbia calophylla*

Site Vegetation Types:

G3 (formerly 23HDc)- heath with emergent trees including *Melaleuca preissiana* on the wetter areas and *Eucalyptus wandoo* on the drier sites. *Eucalyptus drummondii* is present on the lower and mid-slopes.

G4 (formerly 21AAh) - Indicator species include *Allocasuarina huegeliana*, *Hakea undulata*, *Grevillea bipinnatifida*, *Hypocalymma angustifolium* and *Calothamnus quadrifidus*.

Plant Abundance:

Sparse to frequent.

Soil Types:

Sandy clay

Yellow sand

Laterite.

Lateritic gravel

Sandy loam over laterite

Sand

Topography:

Sandplains

Mid to upper slopes

Rise

Flat

Ridge

Breakaway

Localities:

Narrogin, Pingaring, Ongerup, Harrismith, Highbury, Tincurrin, Arthur River, Dryandra, Wandering, Popanyinning, Boyagin, North Bannister, Babakin, Boddington, Kulin, Pingelly.

Distribution within Boddington Gold Mine Lease:

This species has been located in the Boddington Gold Mine Project Area and in one of the Vegetation Baseline Plots (BG08).

Management Recommendations:

This species is restricted to the shallow soil types (G3 and G4) and these areas should be avoided.

5.3 *Gastrolobium* sp. Prostrate Boddington (M. Hislop 2130)

Family: *Gastrolobium* sp. Prostrate Boddington (M. Hislop 2130) belongs to the family Papilionaceae.

Taxonomic History: This taxon was previously called *Nemcia* sp. (aff. *hookeri*)(HF17) because of its affinity to this species. There have been taxonomic changes in the genus and the official allocation of a phrase name.

State Conservation Status: - Priority One (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Prostrate, mat-like plant, 0.05m high

Flowers yellow and red

Flowers October

Vegetation:

Woodland with *Eucalyptus wandoo*

Woodland of *Eucalyptus rudis*

Woodland of *Eucalyptus rudis* and *Eucalyptus patens*

Site Vegetation Types:

C – Woodland of *Eucalyptus rudis* – *Melaleuca raphiophylla* on the fringes of the Hotham River.

Abundance:

Occasional or locally common

Soil Types:

Clay
Brown loam

Topography:

Valley bottom
Lower slopes
Lateritic rise

Localities:

Tullis Bridge, east of Boddington and on Pinjarra – Williams Road, west of Boddington.

Distribution within Boddington Gold Mine:

This species was located downstream from the Hedges Gold Mine tailings dam on vegetation monitoring transects 11,12 and 14. These transects are on the edge of the Hotham River.

Management Recommendations:

Avoid impacting the creekline and associated flood plains on the Hotham River.

5.4 *Halgania corymbosa*

Family: *Halgania corymbosa* belongs to the family Boraginaceae.

Taxonomic History:

May have been mis-identified as *Halgania preissiana* in some of the historical surveys.

State Conservation Status: - Priority Three (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Erect shrub, 0.35-1m high
Stems and leaves hairy
Leaves prominently toothed, 25-45 x 6-12mm
Flowers blue-purple
Flowers August-November

Vegetation:

Open heath with occasional emergents.
Shrubland with *Dryandra*, *Allocasuarina*, *Melaleuca radula*.
Open forest to woodland of *Corymbia calophylla* and *Eucalyptus marginata*.
Woodland of *Eucalyptus wandoo* and *Eucalyptus marginata*.
Woodland of *Eucalyptus wandoo*.
Woodland of *Eucalyptus patens* and *Eucalyptus wandoo*.

Site Vegetation Types:

This species has been located in the Boddington Gold Mine Project Area in site-vegetation types D, Z, H, P, SP, S, M, Y, L and G3.

This species was located in one of the Vegetation Baseline Plots (BG04 – Site Vegetation Type H).

Plant Abundance:

Patchy, higher numbers in localised patches.

Soil Types:

Gravelly soils
Sandy clay over granite
Lateritic soil
Loams
Granite
Clay or gravelly clay

Topography:

Upper slopes and ridges
Slopes of valley
Lower slopes and gullies

Localities:

Occurs from Gosnells to Giddegannup, with an outlying population at Boddington.

Distribution within Boddington Gold Mine Lease:

This species has been located in the Boddington Gold Mine Project Area and in one of the Vegetation Baseline Plots (BG04).

Management Recommendations:

Avoid heath and Wandoo woodlands as far as feasible.

5.5 *Lasiopetalum cardiophyllum*

Family: *Lasiopetalum cardiophyllum* belongs to the family Sterculiaceae.

State Conservation Status: - Priority Four (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Erect, multi-stemmed shrub, 0.2-0.5m high
Leaves heart-shaped, 9-26 x 10-30mm, entire, coriaceous, almost glabrous above, densely hairy and glaucous below
Flowers pink
Flowers August-January

Vegetation:

Open forest of *Eucalyptus marginata* – *Corymbia calophylla*
Open forest of *Eucalyptus marginata* – *Allocasuarina fraseriana*
Open woodland of *Eucalyptus marginata*
Woodland of *Eucalyptus wandoo* and *Eucalyptus accedens*
Woodland of *Eucalyptus wandoo* over heath
Woodland of *Eucalyptus wandoo*. Associated species: *Lasiopetalum* sp., *Tetralochea* sp., *Hakea petiolaris*, *Goodenia katabudjar*, *Dryandra* sp.
Shrubland adjacent to *Eucalyptus marginata*. Associated species: *Trymalium ledifolium* and *Gastrolobium calycinus*.

Site Vegetation Types:

In the Phase Two Study, this species was recorded from the site-vegetation types S, SP, P, M and G3.
This species was located in the Bauxite Mining Area in site-vegetation types Z, H, P, S, M, G2 and G3.
This species has been located in the Boddington Gold Mine Project Area in site-vegetation types D, H, P, SP, S, ST, M, Y, Z, and G3
Recorded in site-vegetation types H2 and AY within the Quindanning Timber Reserve.

Plant Abundance:

This species is geographically restricted, although frequent in the populations where it occurs.

Soil Types:

Lateritic gravel
Sandy clay
Laterite over granite
Sandy clay over clay
Clay over quartzite

Topography:

Upland lateritic and granitic ridges
Breakaways
Lower to upper slopes
Flat to gently undulating

Localities:

This species is geographically restricted, although well represented in the conservation estate (including Wandering and Stene forested areas) and occurs from Mt Saddleback to North Bannister and Wandering, and a single location east of Highbury.

Distribution within Boddington Gold Mine Bauxite Lease:

This species has been located in significant numbers in the Boddington Gold Mine Area. Recorded on Transects 1, 3, 4, 6, 7 and 8 on a range of site conditions and topography during the original survey of the F3 Residue Storage Area (1991).

It has also been recorded on most sections on a range of site conditions and topography locations in the Eastern Anomaly Area (1992). The Eastern Anomaly Area is located south-east and east of the current Boddington Gold Mine.

Within the Marradong Timber Reserve it was restricted to three main areas on sandy-gravelly soils and less undulating slopes both north and south of Morts Road in the western section of the survey area (Mattiske, E.M. and Associates 1990b).

Management Recommendations:

Previous surveys in the eastern Jarrah Forest and Wandoo communities have located a significant number of plants in areas currently within the conservation estate and consequently one option is to consider a case to the Department of Conservation of Land Management for changes to its status.

This species has also re-established on the rehabilitation areas at Boddington Bauxite Mine in the Mt Saddleback area.

5.6 *Senecio leucoglossus*

Family: *Senecio leucoglossus* belongs to the family Asteraceae.

State Conservation Status: - Originally given a Priority Two ranking, but has been changed to Priority Four (Table 2).

Federal Conservation Code: - Not nationally listed

Description:

Erect annual herb, to 1.3m
Leaves 10-50 x 3-15mm, margin irregularly toothed and lobed, apex acute.
Flowers white
Flowers August to December

Vegetation:

Forest to open forest of *Eucalyptus marginata* – *Corymbia calophylla*
Low open scrub over granite. Associated species: *Burchardia* sp., *Sowerbaea laxiflora*, *Conospermum huegelii*, *Calytrix glutinosa*, *Darwinia citriodora*

Site Vegetation Types:

D (19JHI)- Open forest of *Eucalyptus marginata* - *Corymbia calophylla*

P/SP (19JLc) - Open forest of *Eucalyptus marginata* and *Allocasuarina fraseriana*, with occasional *Corymbia calophylla*; *Banksia grandis* in second storey.

S/SP (19JBg)- Open forest of *Eucalyptus marginata*, few *Corymbia calophylla* and *Allocasuarina fraseriana* with the second storey dominated by *Banksia grandis* on the ridges, crests and saddles, occasionally upper slopes and ridges.

ST (19JSd) - Open forest of *Eucalyptus marginata*, *Corymbia calophylla* with the second storey dominated by *Banksia grandis* on the ridges, crests and saddles, occasionally upper slopes

G2 (24HCq) - Heath of *Eucalyptus aspersa*, *Calothamnus quadrifidus*, *Grevillea bipinnatifida* and *Acacia alata*. Often occurs in close proximity to Wandoo woodlands.

Z (19JMr) – Open forest of *Eucalyptus marginata* – *Corymbia calophylla*

H (19JPs) – ranges from an open forest to woodland of *Eucalyptus marginata* – *Corymbia calophylla*.

M (11W1) – Woodland of *Eucalyptus wandoo* – *Eucalyptus marginata* on upper slopes and ridges.

Y (11W2) – Woodland of *Eucalyptus wandoo* on the lower slopes and gullies in the valleys.

This species was also located in significant numbers in the Boddington Gold Mine Area in site-vegetation types, D, Z, H, P, S, ST, M and Y.

This species was also recorded in the F3 Residue Storage Area in site-vegetation types M, D and S.

This species was also recorded in the Marradong Timber Reserve (Mattiske, E.M. and Associates 1990b) in site-vegetation types ST, S, P, H, Z and M.

Plant Abundance:

Regular and in low numbers.

Soil Types:

Loam

Lateritic gravel

Lateritic sandy clay

Gravelly sand over granite

Brown loam over granite

Granitic soil

Topography:

Ridge to gullies

Granitic slopes and valleys

Localities:

From Swan View south to Harvey and east to Boddington.

Distribution within Boddington Gold Mine Lease:

This species has been recorded at the Boddington Gold Mine Area, Marradong Timber Reserve, F3 Residue Storage Area and a common occurrence in the Eastern Anomaly Area.

Management Recommendations:

It is recommended that the conservation status of this species requires reviewing, as populations have been recorded by Mattiske Consulting Pty Ltd on a range of sites throughout the northern Jarrah forest.

5.7 *Stenanthemum coronatum*

Family: *Stenanthemum coronatum* belongs to the family Rhamnaceae

Taxonomic History:

State Conservation Status: - Priority Three (Table 2).

Federal Conservation Code: - Not nationally listed

Description:

Prostrate shrub 0.02-0.05m high
Flowers cream, white
Flowers June-November

Vegetation:

Woodland to forest of *Eucalyptus marginata* – *Corymbia calophylla*
Woodland of *Eucalyptus accedens*
Forest of *Eucalyptus marginata*
Woodland of *Eucalyptus marginata* – *Corymbia calophylla* – *Eucalyptus wandoo*
Scrub with *Eucalyptus drummondii*, *Dryandra nobilis*, *Beaufortia incana*

Site Vegetation Types

D (formerly 19JH1) – open forest of *Eucalyptus marginata* – *Corymbia calophylla* on lower slopes with mixed low understorey species, including *Baeckea camphorosmae* and *Acacia extensa*.
S (formerly 19JBg) – open forest of *Eucalyptus marginata* – *Banksia grandis* – *Allocasuarina fraseriana* with scattered understorey, including *Leucopogon capitellatus* and *Styphelia tenuiflora*.
H – open forest to woodland of *Eucalyptus marginata* – *Corymbia calophylla*
G3 (formerly 23HDc) - open heath of *Dryandra squarrosa* subsp. *squarrosa*, *Hakea incrassata*, *Petrophile serruriae* and *Adenanthos cygnorum* with associated species *Melaleuca preissiana* and *Eucalyptus drummondii*

Plant Abundance:

Occasional to numerous in small area

Soil Types:

Gravelly clay loam
Laterite
Sand/clay/gravel
Clayey sand
Clay loam over laterite

Topography:

Ridge
Slope
Valley

Localities:

From Northam to Dwellingup, Darkan, Quindanning and Bowelling.

Distribution within Boddington Gold Mine Lease:

This species has been recorded from the Boddington Gold Mine Project area (Worsley Alumina Pty Ltd 1999).
It has been recorded at three locations in the Hedges Timber Reserve study area (Mattiske Consulting Pty Ltd 1998b).

Management Recommendations:

Avoid heath and Wandoo woodlands as far as feasible.

5.8 *Stylidium marradongense*

Family: *Stylidium marradongense* belongs to the family Stylidiaceae.

Taxonomic History:

Stylidium marradongense is a relatively new species only being described in 1997. The specimens collected within the Worsley Bauxite Mining Area were previously identified as *Stylidium imbricatum*. This later species is now considered to be restricted to the south coast.

State Conservation Status: - Priority Three (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Erect perennial herb, ca. 0.2m high
Leaves appressed, tile-like, spirally arranged around stem, apical mucro
Flowers pink or white
Flowers September - October

Vegetation:

Open forest of Jarrah
Open woodland of Jarrah and Marri

Site Vegetation Types:

Found within site vegetation types Z (formerly 19JMr), H (formerly 19JPs), P (formerly 19JLc) and S (formerly 19JBg) in the Bauxite Mining area.
This species was also located in the Boddington Gold Mine Area in site vegetation type H (formerly 19JPs).

Plant Abundance:

Locally frequent

Soil Types:

Lateritic
Sandy gravel

Topography:

On slopes
Ridge

Localities:

Mt Saddleback to Marradong

Distribution within Boddington Gold Mine Lease:

Only recorded from the Boddington Gold Mine project area (Worsley Alumina Pty Ltd 1999).

Management Recommendations:

It is recommended that the conservation status of this species requires reviewing.

5.9 *Templetonia drummondii*

Family: *Templetonia drummondii* belongs to the family Papilionaceae.

State Conservation Status: - Priority Four (Table 2).

Federal Conservation Code: - Not nationally listed.

Description:

Prostrate or ascending shrub, 0.1-0.4m high
Leaves 1-foliolate, 5-48 x 4-14mm, glabrous, apex mucronate
Flowers yellow, brown and purple
Pods oblong, 18-28 x 8-10mm, glabrous
Seeds ca 4 x 3mm, aril orange
Flowers August-September

Vegetation:

Proteaceous heath

Shrubland

Open woodland of *Eucalyptus marginata* and *Corymbia calophylla*. Associated species: *Dryandra sessilis*

Woodland of *Eucalyptus marginata* and *Eucalyptus wandoo*

Woodland to open woodland of *Eucalyptus wandoo*

Woodland of *Eucalyptus marginata* and *Corymbia calophylla*. Associated species: *Xanthorrhoea preissii*, *Xanthorrhoea gracilis*, *Isopogon sphaerocephalus*, *Hibbertia hypericoides*, *Dryandra lindleyana*.

Site Vegetation Types:

During the Phase One and Two studies for the Bauxite Mine this species was recorded in P(19JLc), S(19JBg), G3(23HDc), Y(11W2) and M(11W1).

In the Mt Saddleback Survey Area recorded in H (19JPs), P (19JLc), S (19JBg), Y (11W2) and G3 (23HDc).

During the Marradong Timber Reserve survey this species was recorded in S(19JBg), Z(19JMr) and (24H)

In the Quindanning Timber Reserve recorded in MG, AY, HG, M (11W1) and Y (11W2).

In the Boddington Gold Mine Area this species was recorded in site-vegetation type Z (19JMr).

Plant Abundance:

Locally rare to occasional

Soil Types:

Laterite

Lateritic gravel

Sandy clay

Gravelly sandy loam

Topography:

Lowland

Flat

Slope to upland

Localities:

Bindoon, Red Hill, Chidlow, John Forrest National Park, Parkerville, Welshpools Hill, Midland Junction, Maida Vale, Lesmurdie, Boyagarring Hill, Glen Forest, Mt Saddleback, and Boscabel

Distribution within Boddington Gold Mine:

This species was regularly recorded during the survey of the Marradong Timber Reserve.

This species was also located in the Boddington Gold Mine Area (Worsley Alumina Pty Ltd 1999), however, it was not found in the F3 Residue Storage Area and the Eastern Anomaly Area.

Management Recommendations:

This species is known from extensive studies in the Northern Jarrah forest to occupy a large range of communities and is considered to be poorly known rather than endangered or rare.

5.10 Vegetation

The Boddington and Hedges lease areas occur within the Darling Botanical District of the South-western Botanical Province as recognized by Diels (1906) and later developed by Gardner (1942) and Beard (1979, 1980).

Previous workers have stressed the significance of the climate, landforms and soils in determining the distribution of plant communities in this area (Diels 1906; Williams 1932, 1942; Speck 1952, 1958; Lange 1960; Churchill 1961, 1968; Smith 1974; Seddon 1972; Havel 1968, 1975a, 1975b; Heddle *et al.* 1980a; Beard 1981, Mattiske and Havel 1998).

The vegetation at both the regional and local scales are summarized in the attached figures. The regional vegetation complexes are based on the earlier work of Heddle *et al.* (1980) and Mattiske and Havel (1998).

5.11 Vegetation Complexes

A total of seven vegetation complexes were defined for the Boddington and Hedges lease areas, see Table below. The majority of these vegetation complexes are well represented in the conservation estate (based on data in the 2003 Forest Management Plan – Conservation Commission), namely:

| | |
|-------------------|---|
| Cooke (Ce) – | 34.85% of the 1750 pre-European representation in formal and informal reserves. |
| Dwellingup (D4) – | 26.14% of the 1750 pre-European representation in formal and informal reserves. |
| Pindalup (Pn) – | 35.10% of the 1750 pre-European representation in formal and informal reserves. |
| Michibin (Mi) – | 7.10% of the 1750 pre-European representation in formal and informal reserves. |
| Yalanbee (Y6) – | 22.91% of the 1750 pre-European representation in formal and informal reserves. |
| Swamp (S) – | 47.50% of the 1750 pre-European representation in formal and informal reserves. |
| Williams (Wi) – | 0.45% of the 1750 pre-European representation in formal and informal reserves. |

The vegetation complexes that are lower than 10% representation in formal and informal reserves reflect the extent of past agricultural clearing in the valley systems near Boddington. Any proposed development should avoid any impacts on the less well-represented vegetation complexes (i.e. Williams and Michibin). The representation of the vegetation complexes (hectares) in the respective land swap areas are summarized in Table 4). Areas 1 and 2 incorporate most of the vegetation complexes, with the exception of the latter three (Michibin, Williams and Yalanbee).

Table 4: Summary of Vegetation Complexes recorded on Boddington Gold Mine Lease (hectares)

| | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 |
|--------------------|----------|----------|----------|----------|----------|
| Vegetation Complex | Sum Area | Sum Area | Sum Area | Sum Area | Sum Area |
| Cooke | 108.1 | 1.8 | 85.1 | | 61.6 |
| Dwellingup | 352.4 | 404.3 | 839.5 | 102.8 | 2753.1 |
| Pindalup | 285.2 | 222.3 | 293.2 | | 247.2 |
| Swamp | 126.5 | 46.6 | | | 1850.2 |
| Michibin | | | | | 21.0 |
| Williams | | | | | 48.3 |
| Yalanbee | | | | | 71.7 |

5.12 Site-Vegetation Types

The site-vegetation types, which were based on the earlier definitions by Havel (1975a and 1975b) were defined and mapped for the Boddington and Hedges lease areas by Mattiske Consulting Pty Ltd over a twenty year period. These site-vegetation types provide a more local and definitive reflection of local vegetation patterns. Although the majority of the areas under review (areas one to five) have been mapped, there is a small section in area 5 that has not been mapped. The results in Table 5 provide a basis for comparing areas.

Table 5: Summary of Site-Vegetation Types recorded on Boddington Gold Mine Lease (hectares)

| | Area 1 | Area 2 | Area 3 | Area 4 | Area 5 |
|----------------------|----------|----------|----------|----------|----------|
| Site-Vegetation Type | Sum_Area | Sum_Area | Sum_Area | Sum Area | Sum Area |
| A | 58.8 | 36.3 | 10.4 | | |
| AX | | | | | 0.3 |
| AY | 29.2 | | 35.2 | | 3.8 |
| B | 3.7 | | 3.0 | | |
| D | 68.5 | 42.5 | 70.5 | | 7.2 |
| DG | 0.8 | 10.4 | | | |
| E | 9.4 | | | | |
| G3 | 17.6 | | 11.4 | | |
| H | 315.1 | 381.0 | 221.7 | | 31.9 |
| HG | 3.0 | 18.0 | 1.6 | | |
| M | 5.8 | | 10.9 | | 9.1 |
| MG | 4.1 | | 0.9 | | |
| P | | | | 0.07 | 27.5 |
| PW | | | 10.23 | | |
| R | 1.8 | | 5.2 | | |
| S | 52.0 | 46.9 | 308.4 | 0.7 | 5.7 |
| SP | 183.1 | 81.8 | 317.5 | | |
| ST | | | 12.4 | 0.04 | |
| SW | 28.1 | 28.4 | 31.7 | | |
| Y | 56.6 | 18.6 | 42.9 | | 1.7 |
| YG | 5.4 | | 2.4 | | |
| Z | 24.0 | 11.1 | 121.2 | 0.4 | 6.0 |

A total of 21 site-vegetation types have been mapped for the Boddington and Hedges lease areas. As this level of mapping has not been undertaken over large areas of the southwest forest region one can only rely on local mapping and observations to assess the significance of the respective site-vegetation types. None of the site-vegetation types are restricted to the lease areas; however there is obvious variations in the proportion of the different site-vegetation types in the respective areas.

If one approaches the significance from a rarity of representation of the site-vegetation types then site types AX, B, DG, E and G3 should be protected wherever possible. Site-vegetation types B, DG, E and G3 occur in Area 1 and 2 which are proposed as an offset for the proposed expansion. These latter site-vegetation types are represented in the nearby reserves within the conservation estate near Mt Cooke and Mt Windsor (Monadnocks Reserve).

If the intent is to maximise the protection of flora values from a diversity perspective then the A, AX, AY (swamps) and the G3, DG, HG, MG and YG (types associated with shallower soils) should be protected. Site-vegetation types A, G3, DG, HG, MG and YG occur in Area 1 and 2 which are proposed as an offset for the proposed expansion. These site-vegetation types are well represented in the nearby reserves within the conservation estate near Yarra Road (Wandoo reserve to north of Boddington) and southwards of the Boddington townsite within the State Forest areas.

If one approaches the protection of priority flora, then the latter types associated with the swamps and the shallower soils would achieve greatest coverage (except for the *Lasiopetalum cardiophyllum* and *Templetonia drummondii*, which occur on sandy-gravel P and PW types). Of these latter two species,

Lasiopetalum cardiophyllum is the more geographically restricted, as it is mainly restricted to the Boddington area.

Previous studies on this taxon have indicated that substantial populations occur south of Boddington in State Forest areas and therefore as a taxon it is not under immediate threat at this juncture. *Templetonia drummondii* occurs throughout a range of site-vegetation types and has been recorded southwards to Collie and westwards towards Dwellingup in both reserves and State forest areas. Both of the latter species have been recorded in rehabilitation areas near Boddington.

5.13 Local and Regional Significance

None of these plant communities are considered Threatened Ecological Communities pursuant to Schedule 2 of the Environment Protection and Biodiversity Conservation Act (1999) or according to English and Blyth (1997).

The site-vegetation types that have been cleared to date are summarized in Table 6. Of these the more significant site-vegetation types include the G3 and G4 communities, which support a range of priority species and the site-vegetation type L, which is poorly represented in the conservation estate.

Table 6: Summary of Current and Future Clearing Areas in relation to Site-Vegetation Typesm (hectares)

| Site-Vegetation Type | Current Cleared Area | Future Cleared Area |
|----------------------|----------------------|---------------------|
| | Sum Area | Sum Area |
| A | 76.1 | 78.9 |
| AX | 47.1 | 73.1 |
| AY | 108.0 | 149.5 |
| D | 146.4 | 220.7 |
| E | - | 5.7 |
| G3 | 19.3 | 42.1 |
| G4 | 0.4 | 1.1 |
| H | 336.9 | 574.5 |
| L | 54.6 | 56.2 |
| M | 139.4 | 172.6 |
| P | 409.7 | 532.3 |
| S | 366.6 | 641.6 |
| SP | 50.8 | 65.6 |
| ST | 55.8 | 65.3 |
| W | 2.9 | 2.9 |
| Y | 160.1 | 255.4 |
| Z | 476.3 | 662.0 |
| Total | 2450.4 | 3599.4 |

From a diversity of site-vegetation types Areas 1 and 3 include the larger range of site-vegetation types. None of the site-vegetation types are restricted to the Boddington area within the Boddington and Hedges lease areas. The majority of the site-vegetation types as recorded are represented in the conservations estate within the northern and eastern Jarrah forest. The most restricted site-vegetation types include G4 and L site-vegetation types in a local and regional context. Site-vegetation type L is poorly represented in the conservation estate.

The vegetation within the northern part of the survey area supports slightly different flora as there are extensive areas of sand and sandy gravel soils which strongly influence the species composition.

The proposed land swap appears to be an option at this junction as a large range of site-vegetation types and the associated species are represented in Area 1. An additional offset could be the protection of the Michibin and Williams vegetation complexes and the protection of the G3, G4 and L site-vegetation types in the wider Boddington area.

The restricted occurrence of the Michibin and Williams vegetation complexes and the L site-vegetation type in less disturbed areas has resulted from the early clearing activities for agriculture. Therefore the main concern appears to relate to the shallower soils that support a range of Priority flora species and locally restricted communities (namely G3 and G4).

6. LIST OF PERSONNEL

The following personnel of Mattiske Consulting Pty Ltd were involved in this project:

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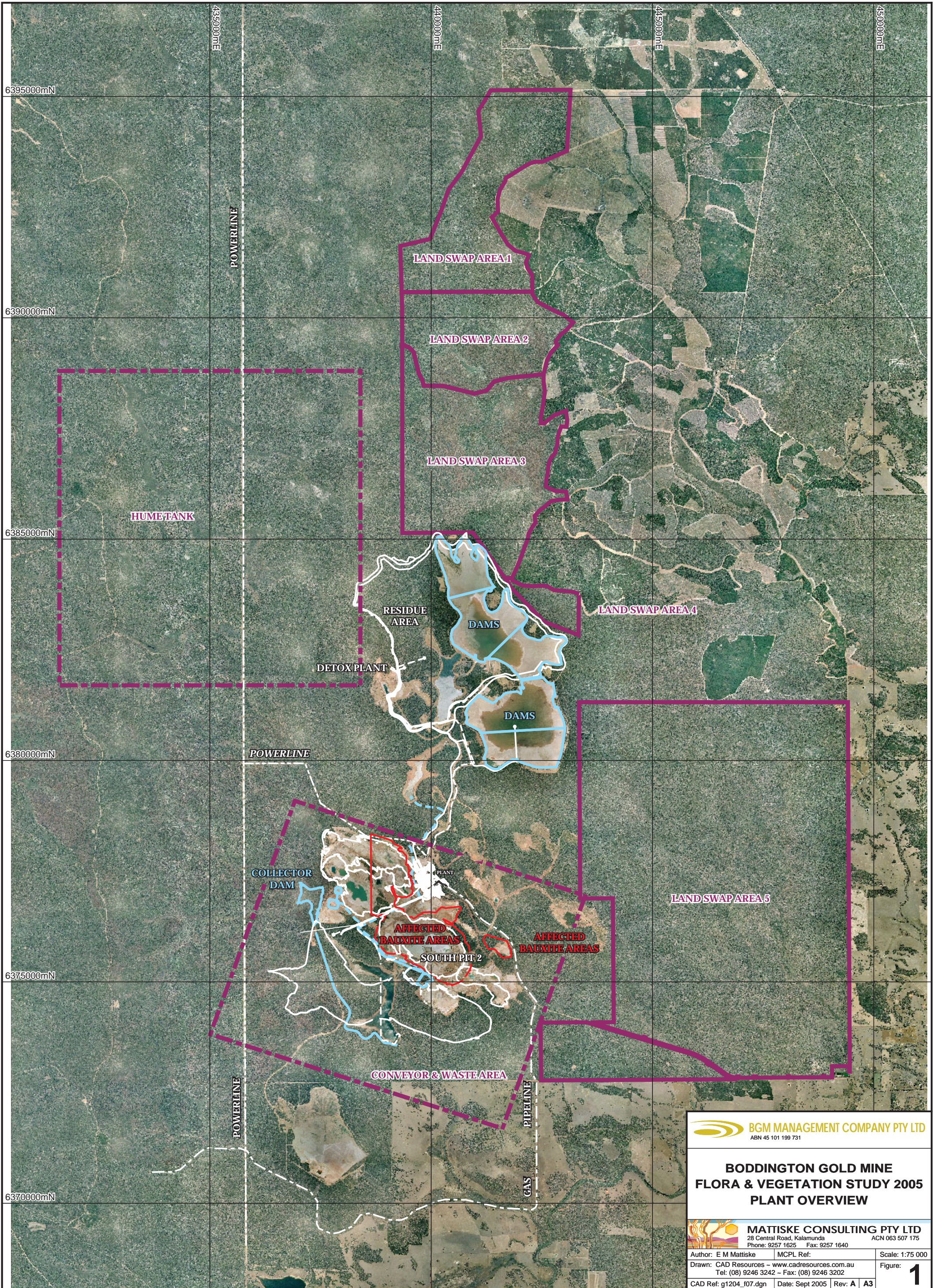
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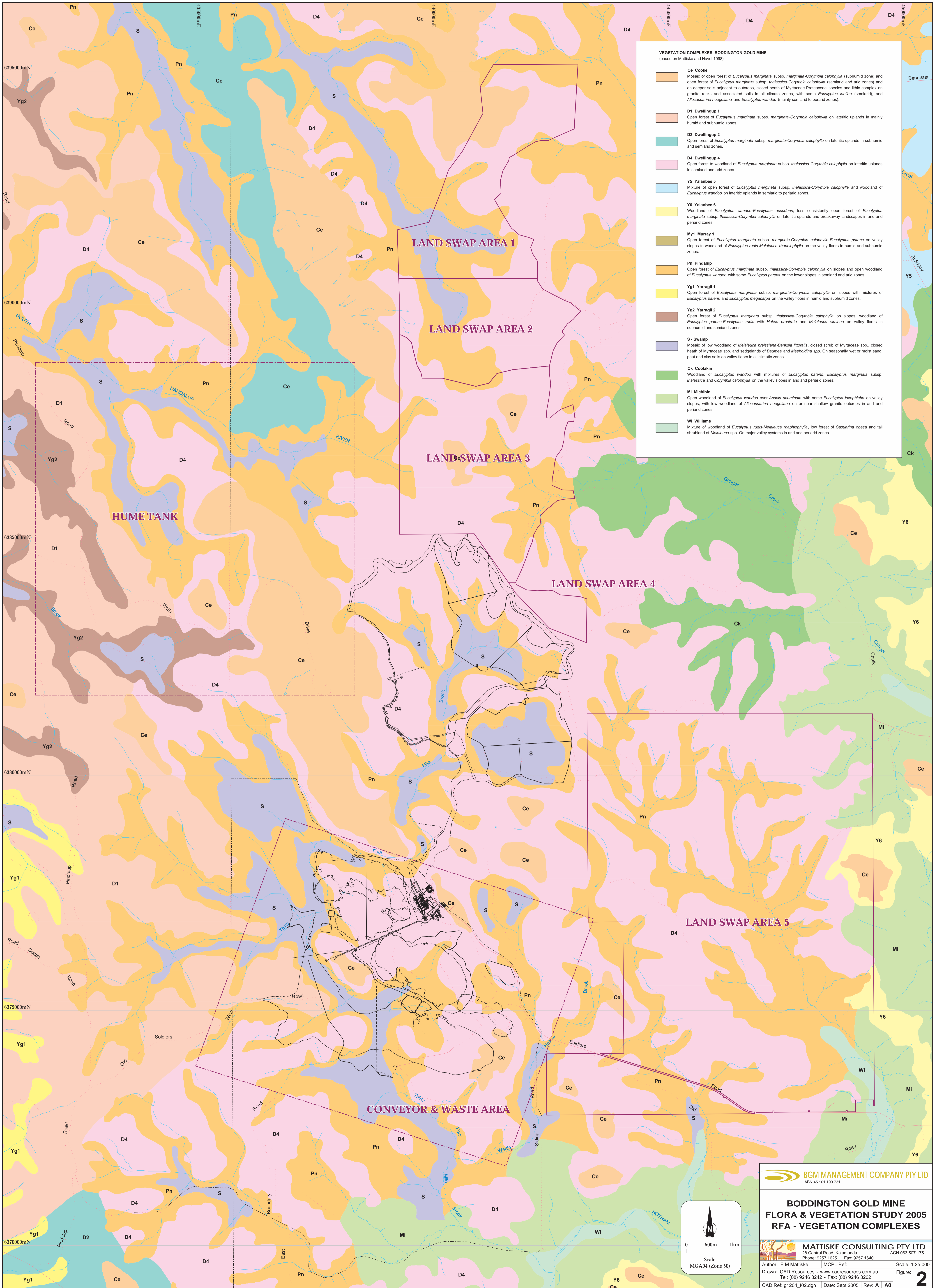


BGM MANAGEMENT COMPANY PTY LTD
 ABN 45 101 199 731

**BODDINGTON GOLD MINE
 FLORA & VEGETATION STUDY 2005
 PLANT OVERVIEW**

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| | | |
|--|-----------------|------------------|
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| CAD Ref: g1204_f07.dgn | Date: Sept 2005 | Rev: A A3 |



VEGETATION COMPLEXES BODDINGTON GOLD MINE
(based on Mattiske and Havel 1998)

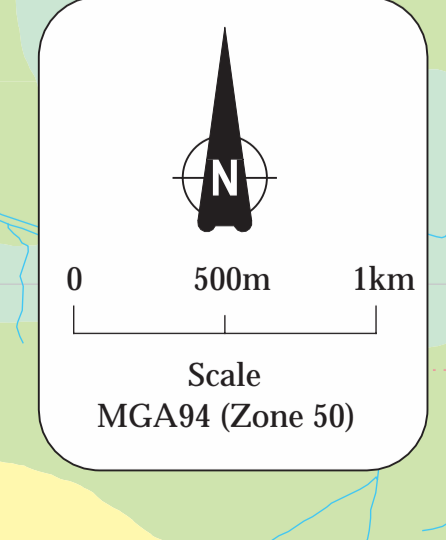
| | |
|------------------------|--|
| Ce Cooke | Mosaic of open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> (subhumid zone) and open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> (semiarid and arid zones) and on deeper soils adjacent to outcrops, closed heath of <i>Myrtaceae</i> - <i>Proteaceae</i> species and litter complex on granite rocks and associated soils in all climatic zones, with some <i>Eucalyptus laevis</i> (semiarid), and <i>Allocasuarina huegeliana</i> and <i>Eucalyptus wandoo</i> (mainly semiarid to perard zones). |
| D1 Dwellingup 1 | Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on lateritic uplands in mainly humid and subhumid zones. |
| D2 Dwellingup 2 | Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on lateritic uplands in subhumid and semiarid zones. |
| D4 Dwellingup 4 | Open forest to woodland of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> on lateritic uplands in semiarid and arid zones. |
| Y5 Yalanbee 5 | Mixture of open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> and woodland of <i>Eucalyptus wandoo</i> on lateritic uplands in semiarid to perard zones. |
| Y6 Yalanbee 6 | Woodland of <i>Eucalyptus wandoo</i> - <i>Eucalyptus accedens</i> , less consistently open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> on lateritic uplands and breakaway landscapes in arid and perard zones. |
| M1 Murray 1 | Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> - <i>Eucalyptus patens</i> on valley slopes to woodland of <i>Eucalyptus rudis</i> - <i>Melaleuca raphiophylla</i> on the valley floors in humid and subhumid zones. |
| Pn Pindalup | Open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> on slopes and open woodland of <i>Eucalyptus wandoo</i> with some <i>Eucalyptus patens</i> on the lower slopes in semiarid and arid zones. |
| Yg1 Yarragil 1 | Open forest of <i>Eucalyptus marginata</i> subsp. <i>marginata</i> - <i>Corymbia calophylla</i> on slopes with mixtures of <i>Eucalyptus patens</i> and <i>Eucalyptus megacarpa</i> on the valley floors in humid and subhumid zones. |
| Yg2 Yarragil 2 | Open forest of <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> - <i>Corymbia calophylla</i> on slopes, woodland of <i>Eucalyptus patens</i> - <i>Eucalyptus rudis</i> with <i>Hakea prostrata</i> and <i>Melaleuca viminea</i> on valley floors in subhumid and semiarid zones. |
| S - Swamp | Mosaic of low woodland of <i>Melaleuca preissiana</i> - <i>Banksia littoralis</i> , closed scrub of <i>Myrtaceae</i> spp., closed heath of <i>Myrtaceae</i> spp. and sedge/lands of <i>Baumea</i> and <i>Meeboldia</i> spp. On seasonally wet or moist sand, peat and clay soils on valley floors in all climatic zones. |
| Ck Coolakin | Woodland of <i>Eucalyptus wandoo</i> with mixtures of <i>Eucalyptus patens</i> , <i>Eucalyptus marginata</i> subsp. <i>thalassica</i> and <i>Corymbia calophylla</i> on the valley slopes in arid and perard zones. |
| Mi Michibin | Open woodland of <i>Eucalyptus wandoo</i> over <i>Acacia acuminata</i> with some <i>Eucalyptus loxophleba</i> on valley slopes, with low woodland of <i>Allocasuarina huegeliana</i> on or near shallow granite outcrops in arid and perard zones. |
| Wi Williams | Mixture of woodland of <i>Eucalyptus rudis</i> - <i>Melaleuca raphiophylla</i> , low forest of <i>Casuarina obesa</i> and tall shrubland of <i>Melaleuca</i> spp. On major valley systems in arid and perard zones. |

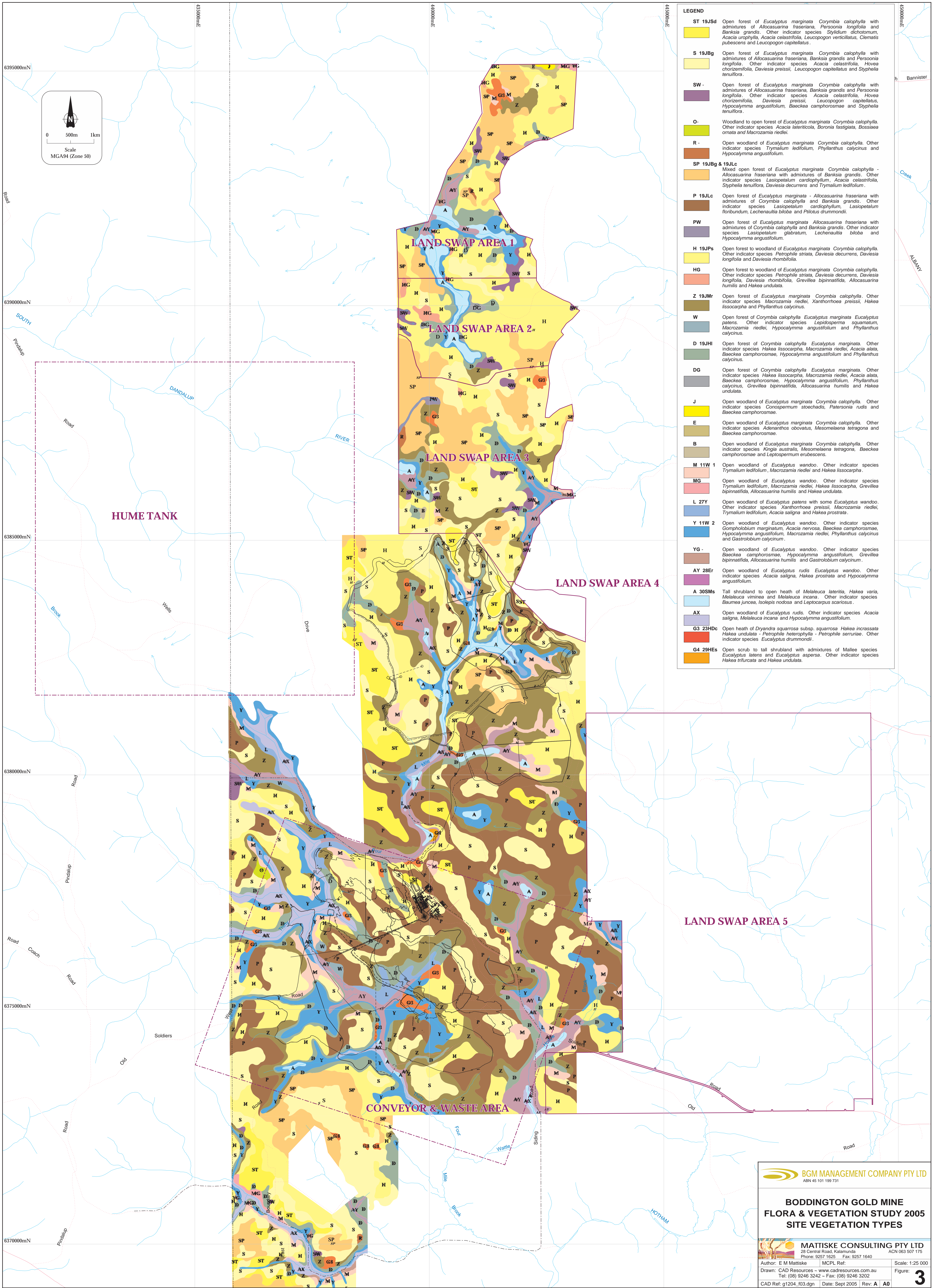
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**BODDINGTON GOLD MINE
FLORA & VEGETATION STUDY 2005
RFA - VEGETATION COMPLEXES**

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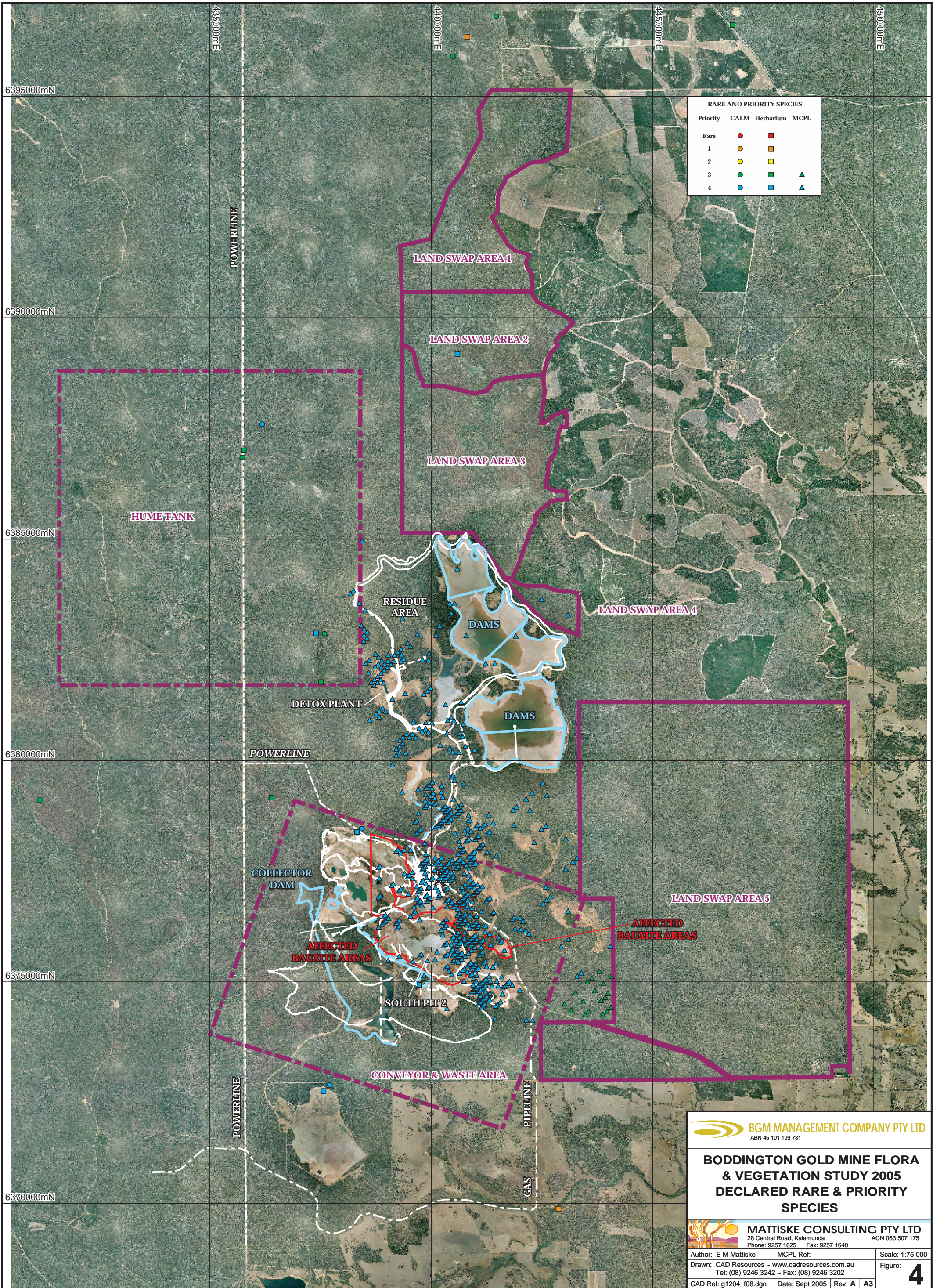


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**BODDINGTON GOLD MINE
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 SITE VEGETATION TYPES**

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| RARE AND PRIORITY SPECIES | | | |
|---------------------------|------|-----------|------|
| Priority | CALM | Herbarium | MCPL |
| Rare | ● | ■ | |
| 1 | ● | ■ | |
| 2 | ● | ■ | ▲ |
| 3 | ● | ■ | ▲ |
| 4 | ● | ■ | ▲ |

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**BODDINGTON GOLD MINE FLORA & VEGETATION STUDY 2005
 DECLARED RARE & PRIORITY SPECIES**

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APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|------------------|------------------------|--|-------------------------------|------------|
| SELAGINELLACEAE | <i>Selaginella</i> | <i>gracillima</i> | 1 | |
| ADIANTACEAE | <i>Adiantum</i> | <i>aethiopicum</i> | | 1 |
| | <i>Cheilanthes</i> | <i>austrotenuifolia</i> | 1 | 1 |
| DENNSTAEDTIACEAE | <i>Pteridium</i> | <i>esculentum</i> | 1 | 1 |
| LINDSAEACEAE | <i>Lindsaea</i> | <i>linearis</i> | | 1 |
| ZAMIACEAE | <i>Macrozamia</i> | <i>riedlei</i> | 1 | 1 |
| PODOCARPACEAE | <i>Podocarpus</i> | <i>drouynianus</i> | 1 | 1 |
| JUNCAGINACEAE | <i>Triglochin</i> | <i>calcitrapum</i> | 1 | |
| | <i>Triglochin</i> | <i>centrocarpa</i> | | 1 |
| POACEAE | * <i>Aira</i> | <i>caryophylla</i> | 1 | 1 |
| | <i>Amphipogon</i> | <i>amphipogonoides</i> | 1 | |
| | <i>Amphipogon</i> | <i>laguroides</i> subsp. <i>laguroides</i> | 1 | 1 |
| | <i>Austrodanthonia</i> | <i>caespitosa</i> | 1 | 1 |
| | <i>Austrodanthonia</i> | <i>pilosa</i> | 1 | |
| | <i>Austrodanthonia</i> | <i>setacea</i> | 1 | |
| | <i>Austrostipa</i> | <i>campylachne</i> | 1 | |
| | <i>Austrostipa</i> | <i>elegantissima</i> | 1 | 1 |
| | <i>Austrostipa</i> | <i>?hemipogon</i> | 1 | |
| | <i>Austrostipa</i> | <i>semibarbata</i> | 1 | |
| | <i>Austrostipa</i> | <i>tenuifolia</i> | | 1 |
| | <i>Austrostipa</i> | <i>trichophylla</i> | 1 | 1 |
| | * <i>?Avellinia</i> | <i>michelii</i> | 1 | |
| | * <i>Avena</i> | <i>fatua</i> | 1 | 1 |
| | * <i>Brachypodium</i> | <i>distachyon</i> | 1 | |
| | * <i>Briza</i> | <i>maxima</i> | 1 | 1 |
| | * <i>Briza</i> | <i>minor</i> | 1 | |
| | * <i>Bromus</i> | <i>diandrus</i> | 1 | 1 |
| | * <i>Bromus</i> | <i>hordeaceus</i> | 1 | |
| | * <i>Bromus</i> | <i>rubens</i> | | 1 |
| | * <i>Cynodon</i> | <i>dactylon</i> | 1 | |
| | <i>Dichelachne</i> | <i>crinita</i> | 1 | |
| | * <i>Ehrharta</i> | <i>longiflora</i> | 1 | |
| | * <i>Eragrostis</i> | <i>curvula</i> | 1 | |
| | * <i>Holcus</i> | <i>setiger</i> | 1 | 1 |
| | * <i>Hordeum</i> | <i>geniculatum</i> | 1 | |
| | * <i>Lagurus</i> | <i>ovatus</i> | 1 | |
| | * <i>Lolium</i> | <i>rigidum</i> | 1 | |
| | <i>Microlaena</i> | <i>stipoides</i> var. <i>stipoides</i> | 1 | |
| | <i>Neurachne</i> | <i>alopecuroidea</i> | 1 | 1 |
| | * <i>Pennisetum</i> | <i>clandestinum</i> | 1 | |
| | * <i>Pentaschistis</i> | <i>airoides</i> subsp. <i>airoides</i> | 1 | |
| | * <i>Poa</i> | <i>annua</i> | 1 | |
| | <i>Poa</i> | <i>drummondiana</i> | 1 | 1 |
| | <i>Poa</i> | <i>porphyroclados</i> | 1 | 1 |
| | * <i>Polypogon</i> | <i>monspeliensis</i> | | 1 |
| | * <i>Secale</i> | <i>cereale</i> | 1 | |
| | <i>Tetrarrhena</i> | <i>laevis</i> | 1 | 1 |
| | <i>Themeda</i> | <i>triandra</i> | 1 | 1 |
| | * <i>Triticum</i> | <i>aestivum</i> | 1 | |
| | * <i>Vulpia</i> | <i>bromoides</i> | 1 | |
| | * <i>Vulpia</i> | <i>myuros</i> | 1 | 1 |
| | Poaceae | sp. | 1 | |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|-------------------|---------------------|--|-------------------------------|------------|
| CYPERACEAE | <i>Baumea</i> | <i>juncea</i> | 1 | |
| | <i>Baumea</i> | <i>vaginalis</i> | 1 | |
| | <i>Chorizandra</i> | <i>enodis</i> | 1 | 1 |
| | <i>Cyathochaeta</i> | <i>avenacea</i> | 1 | 1 |
| | <i>Cyathochaeta</i> | <i>clandestina</i> | 1 | |
| | * <i>Cyperus</i> | <i>tenellus</i> | 1 | |
| | <i>Ficinia</i> | <i>nodosa</i> | 1 | |
| | <i>Gahnia</i> | <i>ancistrophylla</i> | | 1 |
| | <i>Gahnia</i> | <i>aristata</i> | 1 | |
| | <i>Gahnia</i> | <i>decomposita</i> | 1 | |
| | <i>Isolepis</i> | <i>cernua</i> | 1 | |
| | <i>Isolepis</i> | <i>cyperoides</i> | 1 | |
| | * <i>Isolepis</i> | <i>marginata</i> | 1 | 1 |
| | <i>Isolepis</i> | <i>stellata</i> | 1 | |
| | <i>Lepidosperma</i> | <i>brunonianum</i> | | 1 |
| | <i>Lepidosperma</i> | <i>drummondii</i> | 1 | |
| | <i>Lepidosperma</i> | aff. <i>drummondii</i> | 1 | |
| | <i>Lepidosperma</i> | <i>gracile</i> | 1 | 1 |
| | <i>Lepidosperma</i> | aff. <i>gracile</i> | | 1 |
| | <i>Lepidosperma</i> | <i>leptostachyum</i> | 1 | 1 |
| | <i>Lepidosperma</i> | <i>pubisquamum</i> | 1 | |
| | <i>Lepidosperma</i> | <i>scabrum</i> | 1 | 1 |
| | <i>Lepidosperma</i> | <i>squamatum</i> | 1 | 1 |
| | <i>Lepidosperma</i> | <i>tenue</i> | 1 | 1 |
| | <i>Lepidosperma</i> | <i>tetraquetrum</i> | | 1 |
| | <i>Lepidosperma</i> | <i>tuberculatum</i> | 1 | |
| | <i>Mesomelaena</i> | <i>graciliceps</i> | | 1 |
| | <i>Mesomelaena</i> | <i>tetragona</i> | 1 | |
| | <i>Schoenus</i> | <i>armeria</i> | | 1 |
| | <i>Schoenus</i> | <i>nanus</i> | 1 | |
| | <i>Schoenus</i> | <i>odontocarpus</i> | 1 | |
| | <i>Schoenus</i> | <i>unispiculatus</i> | 1 | |
| | <i>Tetragonia</i> | <i>capillaris</i> | 1 | 1 |
| <i>Tetragonia</i> | <i>octandra</i> | 1 | 1 | |
| Cyperaceae | sp. | 1 | | |
| RESTIONACEAE | <i>Desmocladus</i> | <i>fasciculatus</i> | 1 | 1 |
| | <i>Desmocladus</i> | <i>flexuosus</i> | 1 | |
| | <i>Empodisma</i> | <i>gracillimum</i> | 1 | 1 |
| | <i>Hypolaena</i> | <i>exsulca</i> | 1 | |
| | <i>Lepidobolus</i> | <i>preissianus</i> subsp. <i>preissianus</i> | 1 | 1 |
| | <i>Lepidobolus</i> | <i>preissianus</i> (short form) | 1 | |
| | <i>Lepyrodia</i> | <i>glauca</i> | 1 | |
| | <i>Lepyrodia</i> | <i>macra</i> | | 1 |
| | <i>Lepyrodia</i> | <i>muirii</i> | 1 | |
| | <i>Lepyrodia</i> | <i>riparia</i> (ms) | | 1 |
| | <i>Loxocarya</i> | <i>cinerea</i> | 1 | 1 |
| | <i>Loxocarya</i> | <i>striata</i> | | 1 |
| | <i>Lyginia</i> | <i>barbata</i> | 1 | |
| | <i>Meeboldina</i> | <i>cana</i> | 1 | |
| | <i>Meeboldina</i> | <i>coangustata</i> | 1 | |
| <i>Meeboldina</i> | <i>scariosa</i> | 1 | | |
| CENTROLEPIDACEAE | <i>Aphelia</i> | <i>cyperoides</i> | 1 | |
| | <i>Centrolepis</i> | <i>aristata</i> | 1 | |
| | <i>Centrolepis</i> | <i>drummondiana</i> | 1 | |
| PHILYDRACEAE | <i>Philydrella</i> | <i>pygmaea</i> subsp. <i>pygmaea</i> | 1 | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM | |
|------------------|----------------------|---|-------------------------------|------------|--|
| JUNCACEAE | * <i>Juncus</i> | <i>acutus</i> subsp. <i>acutus</i> | 1 | | |
| | * <i>Juncus</i> | <i>bifonius</i> | 1 | | |
| | <i>Juncus</i> | <i>kraussii</i> subsp. <i>australiensis</i> | 1 | | |
| | <i>Juncus</i> | <i>pallidus</i> | 1 | | |
| | <i>Luzula</i> | <i>meridionalis</i> | | 1 | |
| LILIACEAE | Liliaceae | sp. | 1 | | |
| DASYPOGONACEAE | <i>Acanthocarpus</i> | <i>canaliculatus</i> | 1 | | |
| | <i>Dasypogon</i> | <i>bromeliifolius</i> | | 1 | |
| | <i>Kingia</i> | <i>australis</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>brittanii</i> | 1 | | |
| | <i>Lomandra</i> | <i>caespitosa</i> | 1 | | |
| | <i>Lomandra</i> | <i>drummondii</i> | 1 | | |
| | <i>Lomandra</i> | <i>hermaphrodita</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>integra</i> | 1 | | |
| | <i>Lomandra</i> | <i>micrantha</i> subsp. <i>micrantha</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>nigricans</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>odora</i> | 1 | | |
| | <i>Lomandra</i> | <i>pauciflora</i> | 1 | | |
| | <i>Lomandra</i> | <i>preissii</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>purpurea</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>sericea</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>sonderi</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>spartea</i> | 1 | 1 | |
| | <i>Lomandra</i> | <i>suaveolens</i> | | 1 | |
| | <i>Lomandra</i> | sp. (JK 12) | | 1 | |
| | <i>Lomandra</i> | sp. (JK 122) | | 1 | |
| XANTHORRHOEACEAE | <i>Xanthorrhoea</i> | <i>gracilis</i> | 1 | 1 | |
| | <i>Xanthorrhoea</i> | <i>preissii</i> | 1 | 1 | |
| PHORMIACEAE | <i>Dianella</i> | <i>revoluta</i> | 1 | 1 | |
| | <i>Dianella</i> | <i>revoluta</i> var. <i>divaricata</i> | 1 | | |
| | <i>Stypandra</i> | <i>glauca</i> | 1 | | |
| ANTHERICACEAE | <i>Agrostocrinum</i> | <i>scabrum</i> subsp. <i>scabrum</i> | 1 | 1 | |
| | <i>Borya</i> | <i>sphaerocephala</i> | 1 | 1 | |
| | <i>Caesia</i> | <i>micrantha</i> | 1 | | |
| | <i>Caesia</i> | <i>micrantha/occidentalis</i> | 1 | 1 | |
| | <i>Chamaescilla</i> | <i>corymbosa</i> | 1 | 1 | |
| | <i>Chamaescilla</i> | <i>corymbosa</i> var. <i>corymbosa</i> | 1 | | |
| | <i>Corynotheca</i> | <i>micrantha</i> | 1 | | |
| | <i>Dichopogon</i> | <i>capillipes</i> | 1 | 1 | |
| | <i>Johnsonia</i> | <i>lupulina</i> | | 1 | |
| | <i>Laxmannia</i> | <i>squarrosa</i> | 1 | 1 | |
| | <i>Sowerbaea</i> | <i>laxiflora</i> | 1 | 1 | |
| | <i>Thysanotus</i> | <i>dichotomus</i> | 1 | 1 | |
| | <i>Thysanotus</i> | <i>fastigiatus</i> | 1 | | |
| | <i>Thysanotus</i> | <i>manglesianus</i> | 1 | | |
| | <i>Thysanotus</i> | <i>multiflorus</i> | 1 | 1 | |
| | <i>Thysanotus</i> | <i>patersonii</i> | 1 | 1 | |
| | <i>Thysanotus</i> | <i>tenellus</i> | 1 | 1 | |
| | <i>Thysanotus</i> | <i>thyrsoides</i> | 1 | 1 | |
| | <i>Tricoryne</i> | <i>elatior</i> | 1 | 1 | |
| | <i>Tricoryne</i> | <i>humilis</i> | 1 | 1 | |
| | Anthericaceae | sp. | | 1 | |
| | ASPHODELACEAE | * <i>Trachyandra</i> | <i>divaricata</i> | 1 | |

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(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|---------------------|----------------------|--|-------------------------------|------------|
| COLCHICACEAE | <i>Burchardia</i> | <i>multiflora</i> | | 1 |
| | <i>Burchardia</i> | <i>umbellata</i> | 1 | 1 |
| | <i>Wurmbea</i> | <i>dioica</i> subsp. <i>alba</i> | 1 | 1 |
| | <i>Wurmbea</i> | <i>tenella</i> | | 1 |
| HAEMODORACEAE | <i>Anigozanthos</i> | <i>flavidus</i> | | 1 |
| | <i>Anigozanthos</i> | <i>manglesii</i> subsp. <i>manglesii</i> | 1 | 1 |
| | <i>Conostylis</i> | <i>aculeata</i> | 1 | |
| | <i>Conostylis</i> | <i>aculeata</i> subsp. <i>aculeata</i> | 1 | |
| | <i>Conostylis</i> | <i>pusilla</i> | 1 | |
| | <i>Conostylis</i> | <i>serrulata</i> | 1 | |
| | <i>Conostylis</i> | <i>setigera</i> subsp. <i>setigera</i> | 1 | 1 |
| | <i>Conostylis</i> | <i>setosa</i> | 1 | |
| | <i>Haemodorum</i> | <i>laxum</i> | 1 | 1 |
| | <i>Haemodorum</i> | <i>paniculatum</i> | 1 | |
| | <i>Haemodorum</i> | <i>simplex</i> | 1 | 1 |
| | <i>Haemodorum</i> | <i>spicatum</i> | 1 | 1 |
| | <i>Phlebocarya</i> | <i>ciliata</i> | 1 | 1 |
| | <i>Tribonanthes</i> | <i>australis</i> | 1 | |
| <i>Tribonanthes</i> | <i>longipetala</i> | 1 | | |
| HYPOXIDACEAE | <i>Hypoxis</i> | <i>glabella</i> | 1 | |
| | <i>Hypoxis</i> | <i>occidentalis</i> | 1 | 1 |
| IRIDACEAE | * <i>Freesia</i> | <i>alba</i> x <i>leichtlinii</i> | 1 | |
| | * <i>Hesperantha</i> | <i>falcata</i> | 1 | |
| | * <i>Moraea</i> | <i>flaccida</i> | | |
| | * <i>Moraea</i> | <i>lewisiae</i> | 1 | |
| | <i>Patersonia</i> | <i>babianoides</i> | 1 | 1 |
| | <i>Patersonia</i> | <i>juncea</i> | 1 | 1 |
| | <i>Patersonia</i> | <i>occidentalis</i> | 1 | 1 |
| | <i>Patersonia</i> | <i>pygmaea</i> | 1 | 1 |
| | <i>Patersonia</i> | <i>rudis</i> subsp. <i>rudis</i> | 1 | 1 |
| | <i>Patersonia</i> | <i>umbrosa</i> var. <i>xanthina</i> | 1 | |
| | * <i>Romulea</i> | <i>rosea</i> | 1 | |
| ORCHIDACEAE | <i>Caladenia</i> | <i>denticulata</i> | | |
| | <i>Caladenia</i> | <i>flava</i> | 1 | 1 |
| | <i>Caladenia</i> | <i>latifolia</i> | | 1 |
| | <i>Caladenia</i> | <i>longicauda</i> | 1 | 1 |
| | <i>Caladenia</i> | <i>macrostylis</i> | | 1 |
| | <i>Caladenia</i> | <i>marginata</i> | 1 | |
| | <i>Caladenia</i> | <i>nana</i> | | 1 |
| | <i>Caladenia</i> | <i>reptans</i> subsp. <i>reptans</i> | | 1 |
| | <i>Cryptostylis</i> | <i>ovata</i> | 1 | 1 |
| | <i>Cyanicula</i> | <i>gemmata</i> | 1 | 1 |
| | <i>Cyanicula</i> | <i>sericea</i> | 1 | 1 |
| | <i>Cyrtostylis</i> | <i>huegelii</i> | 1 | |
| | <i>Cyrtostylis</i> | <i>robusta</i> | | 1 |
| | * <i>Disa</i> | <i>bracteata</i> | 1 | |
| | <i>Diuris</i> | <i>corymbosa</i> aff. <i>corymbosa</i> | 1 | |
| | <i>Diuris</i> | <i>laxiflora</i> | 1 | |
| | <i>Diuris</i> | <i>longifolia</i> | 1 | 1 |
| | <i>Drakaea</i> | <i>livida</i> | | 1 |
| | <i>Elythranthera</i> | <i>brunonis</i> | 1 | 1 |
| | <i>Eriochilus</i> | <i>dilatatus</i> | 1 | 1 |
| | <i>Microtis</i> | <i>media</i> | 1 | 1 |
| <i>Paracaleana</i> | <i>nigrita</i> | | 1 | |
| <i>Pheladenia</i> | <i>deformis</i> | 1 | | |

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(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor

^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|----------------------------|--|--|-------------------------------|------------|
| ORCHIDACEAE (continued) | <i>Prasophyllum</i> | <i>drummondii</i> | 1 | |
| | <i>Prasophyllum</i> | <i>hians</i> | | 1 |
| | <i>Prasophyllum</i> | <i>macrostachyum</i> | 1 | |
| | <i>Prasophyllum</i> | <i>parvifolium</i> | | 1 |
| | <i>Pterostylis</i> | <i>barbata</i> | 1 | 1 |
| | <i>Pterostylis</i> | <i>pyramidalis</i> | 1 | |
| | <i>Pterostylis</i> | <i>recurva</i> | 1 | 1 |
| | <i>Pterostylis</i> | <i>vittata</i> | 1 | 1 |
| | <i>Pyrorchis</i> | <i>nigricans</i> | 1 | 1 |
| | <i>Thelymitra</i> | <i>antennifera</i> | 1 | 1 |
| | <i>Thelymitra</i> | <i>crinita</i> | 1 | 1 |
| | Orchidaceae | sp. | 1 | |
| CASUARINACEAE | <i>Allocasuarina</i> | <i>fraseriana</i> | 1 | 1 |
| | <i>Allocasuarina</i> | <i>huegeliana</i> | 1 | 1 |
| | <i>Allocasuarina</i> | <i>humilis</i> | 1 | 1 |
| | <i>Allocasuarina</i> | <i>microstachya</i> | | 1 |
| PROTEACEAE | <i>Adenanthos</i> | <i>cygnorum</i> subsp. <i>cygnorum</i> | 1 | 1 |
| | <i>Adenanthos</i> | <i>obovatus</i> | 1 | 1 |
| | <i>Banksia</i> | <i>grandis</i> | 1 | 1 |
| | <i>Banksia</i> | <i>littoralis</i> | 1 | 1 |
| | <i>Banksia</i> | <i>sphaerocarpa</i> var. <i>sphaerocarpa</i> | 1 | 1 |
| | <i>Conospermum</i> | <i>amoenum</i> | | 1 |
| | <i>Conospermum</i> | <i>capitatum</i> | 1 | 1 |
| | <i>Conospermum</i> | <i>stoechadis</i> | 1 | |
| | <i>Dryandra</i> | <i>armata</i> | 1 | 1 |
| | <i>Dryandra</i> | <i>bipinnatifida</i> subsp. <i>bipinnatifida</i> | 1 | |
| | <i>Dryandra</i> | <i>lindleyana</i> var. <i>lindleyana</i> | 1 | 1 |
| | <i>Dryandra</i> | <i>nivea</i> subsp. <i>nivea</i> | | 1 |
| | <i>Dryandra</i> | <i>sessilis</i> var. <i>sessilis</i> | 1 | 1 |
| | <i>Dryandra</i> | <i>squarrosa</i> subsp. <i>squarrosa</i> | 1 | 1 |
| | P2 <i>Dryandra</i> | <i>subpinnatifida</i> var. <i>imberbis</i> | | 1 |
| | <i>Grevillea</i> | <i>bipinnatifida</i> subsp. <i>bipinnatifida</i> | 1 | 1 |
| | <i>Grevillea</i> | <i>monticola</i> | 1 | |
| | <i>Grevillea</i> | <i>pilulifera</i> | 1 | |
| | P4 <i>Grevillea</i> | <i>pimeleoides</i> | | 1 |
| | <i>Grevillea</i> | <i>quercifolia</i> | 1 | 1 |
| | <i>Grevillea</i> | <i>trifida</i> | 1 | |
| | <i>Hakea</i> | <i>amplexicaulis</i> | 1 | 1 |
| | <i>Hakea</i> | <i>ceratophylla</i> | 1 | |
| | <i>Hakea</i> | <i>cyclocarpa</i> | 1 | |
| | <i>Hakea</i> | <i>gilbertii</i> | | 1 |
| | <i>Hakea</i> | <i>incrassata</i> | 1 | 1 |
| | <i>Hakea</i> | <i>linearis</i> | | 1 |
| | <i>Hakea</i> | <i>lissocarpha</i> | 1 | 1 |
| | <i>Hakea</i> | <i>prostrata</i> | 1 | 1 |
| | <i>Hakea</i> | <i>ruscifolia</i> | 1 | 1 |
| | <i>Hakea</i> | <i>stenocarpa</i> | | |
| | <i>Hakea</i> | <i>trifurcata</i> | 1 | 1 |
| | <i>Hakea</i> | <i>undulata</i> | 1 | 1 |
| <i>Hakea</i> | <i>varia</i> | 1 | 1 | |
| <i>Isopogon</i> | <i>attenuatus</i> | 1 | | |
| <i>Isopogon</i> | <i>buxifolius</i> | 1 | 1 | |
| <i>Isopogon</i> | <i>crithmifolius</i> | 1 | 1 | |
| <i>Isopogon</i> | <i>dubius</i> | 1 | 1 | |
| <i>Isopogon</i> | <i>sphaerocephalus</i> | 1 | | |
| <i>Isopogon</i> | <i>teretifolius</i> subsp. <i>teretifolius</i> | | 1 | |
| <i>Lambertia</i> | <i>multiflora</i> var. <i>darlingensis</i> | 1 | 1 | |

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(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|-----------------|----------------------|--|-------------------------------|------------|
| PROTEACEAE | <i>Persoonia</i> | <i>angustiflora</i> | 1 | 1 |
| (continued) | <i>Persoonia</i> | <i>elliptica</i> | 1 | 1 |
| | <i>Persoonia</i> | <i>longifolia</i> | 1 | 1 |
| | <i>Persoonia</i> | <i>quinquenervis</i> | | 1 |
| | <i>Persoonia</i> | <i>saccata</i> | 1 | 1 |
| | <i>Petrophile</i> | <i>ericifolia</i> subsp. <i>ericifolia</i> | | 1 |
| | <i>Petrophile</i> | <i>heterophylla</i> | 1 | 1 |
| | <i>Petrophile</i> | <i>linearis</i> | | 1 |
| | <i>Petrophile</i> | <i>seminuda</i> | | 1 |
| | <i>Petrophile</i> | <i>serruriae</i> | 1 | 1 |
| | <i>Petrophile</i> | <i>squamata</i> subsp. <i>squamata</i> | 1 | 1 |
| | <i>Petrophile</i> | <i>striata</i> | 1 | 1 |
| | <i>Stirlingia</i> | <i>latifolia</i> | 1 | 1 |
| | <i>Stirlingia</i> | <i>simplex</i> | 1 | |
| | <i>Synaphea</i> | <i>damopsis</i> | 1 | 1 |
| | <i>Synaphea</i> | <i>gracillima</i> | 1 | 1 |
| | <i>Synaphea</i> | <i>petiolaris</i> subsp. <i>petiolaris</i> | 1 | 1 |
| SANTALACEAE | <i>Exocarpos</i> | <i>sparteus</i> | 1 | 1 |
| | <i>Leptomeria</i> | <i>cunninghamii</i> | 1 | 1 |
| | <i>Santalum</i> | <i>acuminatum</i> | 1 | 1 |
| | <i>Xylomelum</i> | <i>occidentale</i> | 1 | |
| OLACACEAE | <i>Ola</i> | <i>benthamiana</i> | 1 | 1 |
| POLYGONACEAE | * <i>Acetosella</i> | <i>vulgaris</i> | | 1 |
| | <i>Muehlenbeckia</i> | <i>adpressa</i> | | 1 |
| | * <i>Rumex</i> | <i>crispus</i> | 1 | 1 |
| CHENOPODIACEAE | * <i>Atriplex</i> | <i>prostrata</i> | 1 | |
| | * <i>Chenopodium</i> | <i>glaucum</i> | | 1 |
| AMARANTHACEAE | <i>Ptilotus</i> | <i>declinatus</i> | 1 | |
| | <i>Ptilotus</i> | <i>drummondii</i> var. <i>drummondii</i> | 1 | 1 |
| | <i>Ptilotus</i> | <i>manglesii</i> | 1 | 1 |
| PHYTOLACCACEAE | * <i>Phytolacca</i> | <i>octandra</i> | 1 | |
| CARYOPHYLLACEAE | * <i>Cerastium</i> | <i>glomeratum</i> | 1 | |
| | * <i>Petrorhagia</i> | <i>dubia</i> | 1 | |
| | * <i>Sagina</i> | <i>procumbens</i> | 1 | |
| | * <i>Silene</i> | <i>gallica</i> | 1 | |
| RANUNCULACEAE | <i>Clematis</i> | <i>aristata</i> var. <i>occidentalis</i> | 1 | 1 |
| | <i>Ranunculus</i> | <i>colonorum</i> | 1 | |
| LAURACEAE | <i>Cassytha</i> | <i>glabella</i> | 1 | 1 |
| | <i>Cassytha</i> | <i>racemosa</i> | 1 | 1 |
| BRASSICACEAE | * <i>Brassica</i> | <i>rapa</i> | 1 | |
| | <i>Lepidium</i> | sp. | 1 | |
| DROSERACEAE | <i>Drosera</i> | <i>barbigera</i> | | 1 |
| | <i>Drosera</i> | <i>bulbosa</i> subsp. <i>bulbosa</i> | 1 | 1 |
| | <i>Drosera</i> | <i>erythrorhiza</i> | 1 | 1 |
| | <i>Drosera</i> | <i>gigantea</i> subsp. <i>gigantea</i> | 1 | 1 |
| | <i>Drosera</i> | <i>glanduligera</i> | 1 | 1 |
| | <i>Drosera</i> | <i>heterophylla</i> | | 1 |
| | <i>Drosera</i> | <i>leucoblasta</i> | | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM | |
|----------------------------|-----------------------|--|-------------------------------|------------|---|
| DROSERACEAE (continued) | <i>Drosera</i> | <i>macrantha</i> subsp. <i>macrantha</i> | 1 | | |
| | <i>Drosera</i> | <i>menziesii</i> | 1 | 1 | |
| | <i>Drosera</i> | ? <i>microphylla</i> | 1 | | |
| | <i>Drosera</i> | <i>pallida</i> | | 1 | |
| | <i>Drosera</i> | <i>platystigma</i> | 1 | 1 | |
| | <i>Drosera</i> | <i>pulchella</i> | | 1 | |
| | <i>Drosera</i> | <i>scorpioides</i> | 1 | | |
| | <i>Drosera</i> | <i>stolonifera</i> | 1 | | |
| | <i>Drosera</i> | <i>stolonifera</i> subsp. <i>stolonifera</i> | 1 | 1 | |
| | <i>Drosera</i> | <i>stricticaulis</i> | 1 | 1 | |
| | <i>Drosera</i> | sp. (climbing) | 1 | | |
| PITTOSPORACEAE | <i>Billardiera</i> | <i>floribunda</i> | 1 | 1 | |
| | <i>Billardiera</i> | <i>fraseri</i> | 1 | | |
| | <i>Billardiera</i> | <i>fusififormis</i> | 1 | 1 | |
| | <i>Billardiera</i> | <i>variifolia</i> | 1 | 1 | |
| | <i>Cheiranthra</i> | sp. | | | |
| | <i>Marianthus</i> | <i>bicolor</i> | 1 | 1 | |
| | <i>Marianthus</i> | <i>drummondianus</i> | 1 | | |
| ROSACEAE | * <i>Acaena</i> | <i>echinata</i> | 1 | 1 | |
| | * <i>Acaena</i> | <i>echinata</i> var. <i>tylacantha</i> | 1 | | |
| MIMOSACEAE | <i>Acacia</i> | <i>alata</i> var. <i>alata</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>applanata</i> | 1 | | |
| | <i>Acacia</i> | <i>barbinervis</i> subsp. <i>barbinervis</i> | 1 | | |
| | <i>Acacia</i> | <i>browniana</i> | 1 | | |
| | <i>Acacia</i> | <i>browniana</i> var. <i>browniana</i> | 1 | | |
| | <i>Acacia</i> | <i>browniana</i> var. <i>endlicheri</i> | 1 | | |
| | <i>Acacia</i> | <i>celastrifolia</i> | 1 | 1 | |
| | ^ <i>Acacia</i> | <i>decurrens</i> | 1 | | |
| | <i>Acacia</i> | <i>dentifera</i> | | 1 | |
| | <i>Acacia</i> | <i>divergens</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>drummondii</i> | 1 | | |
| | <i>Acacia</i> | <i>drummondii</i> subsp. <i>candolleana</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>drummondii</i> subsp. <i>drummondii</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>ericifolia</i> | | 1 | |
| | <i>Acacia</i> | <i>extensa</i> | 1 | 1 | |
| | P2 <i>Acacia</i> | <i>gemina</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>gilbertii</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>incurva</i> | 1 | | |
| | <i>Acacia</i> | <i>lateriticola</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>leptospermoides</i> subsp. <i>leptospermoides</i> | | 1 | |
| | <i>Acacia</i> | <i>microbotrya</i> | 1 | | |
| | <i>Acacia</i> | <i>myrtifolia</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>nervosa</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>preissiana</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>pulchella</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>pulchella</i> var. <i>glaberrima</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>pulchella</i> var. <i>pulchella</i> | 1 | | |
| | <i>Acacia</i> | <i>saligna</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>stenoptera</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>urophylla</i> | 1 | 1 | |
| | <i>Acacia</i> | <i>willdenowiana</i> | 1 | 1 | |
| | * <i>Leucaena</i> | <i>leucocephala</i> | 1 | | |
| | <i>Paraserianthes</i> | <i>lophantha</i> subsp. <i>lophantha</i> | 1 | 1 | |
| | CAESALPINIACEAE | <i>Labichea</i> | <i>punctata</i> | 1 | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|-------------------|------------------------|--|-------------------------------|------------|
| PAPILIONACEAE | <i>Bossiaea</i> | <i>aquifolium</i> subsp. <i>aquifolium</i> | 1 | |
| | <i>Bossiaea</i> | <i>ericarpa</i> | 1 | 1 |
| | <i>Bossiaea</i> | <i>linophylla</i> | | 1 |
| | <i>Bossiaea</i> | <i>ornata</i> | 1 | 1 |
| | <i>Bossiaea</i> | <i>pulchella</i> | 1 | |
| | <i>Bossiaea</i> | <i>rufa</i> | | 1 |
| | <i>Callistachys</i> | <i>lanceolata</i> | 1 | |
| | * <i>Chamaecytisus</i> | <i>palmensis</i> | | 1 |
| | <i>Chorizema</i> | <i>aciculare</i> | 1 | 1 |
| | <i>Chorizema</i> | <i>dicksonii</i> | 1 | |
| | <i>Chorizema</i> | <i>cordatum</i> | 1 | 1 |
| | <i>Chorizema</i> | <i>rhombeum</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>cordata</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>costata</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>decurrens</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>hakeoides</i> subsp. <i>hakeoides</i> | 1 | |
| | <i>Daviesia</i> | <i>hakeoides</i> subsp. <i>subnuda</i> | 1 | |
| | <i>Daviesia</i> | <i>horrida</i> | 1 | |
| | <i>Daviesia</i> | <i>incrassata</i> subsp. <i>incrassata</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>longifolia</i> | 1 | 1 |
| | <i>Daviesia</i> | aff. <i>longifolia</i> | 1 | |
| | <i>Daviesia</i> | <i>physodes</i> | 1 | |
| | <i>Daviesia</i> | <i>polyphylla</i> | | 1 |
| | <i>Daviesia</i> | <i>preissii</i> | 1 | 1 |
| | <i>Daviesia</i> | aff. <i>preissii</i> | 1 | |
| | <i>Daviesia</i> | <i>rhombofolia</i> | 1 | 1 |
| | <i>Daviesia</i> | <i>triflora</i> | | 1 |
| | <i>Dillwynia</i> | sp. A. Perth Flora (R. Coveny 8036) | | 1 |
| | <i>Eutaxia</i> | <i>virgata</i> | 1 | 1 |
| | <i>Gastrolobium</i> | <i>bilobum</i> | 1 | |
| | <i>Gastrolobium</i> | <i>calycinum</i> | 1 | |
| | <i>Gastrolobium</i> | <i>ebracteolatum</i> | 1 | |
| | <i>Gastrolobium</i> | ? <i>obovatum</i> | 1 | |
| | <i>Gastrolobium</i> | <i>retusum</i> | | 1 |
| | <i>Gastrolobium</i> | <i>spinosum</i> | 1 | |
| | <i>Gastrolobium</i> | <i>villosum</i> | 1 | |
| | P1 <i>Gastrolobium</i> | sp. Prostrate Boddington (M Hislop 2130) | 1 | |
| | <i>Gompholobium</i> | <i>capitatum</i> | 1 | 1 |
| | <i>Gompholobium</i> | <i>confertum</i> | 1 | |
| | <i>Gompholobium</i> | <i>cyaninum</i> (ms) | 1 | 1 |
| | <i>Gompholobium</i> | <i>knightianum</i> | 1 | 1 |
| | <i>Gompholobium</i> | <i>marginatum</i> | 1 | 1 |
| | <i>Gompholobium</i> | <i>ovatum</i> | | 1 |
| | <i>Gompholobium</i> | <i>polymorphum</i> | 1 | 1 |
| | <i>Gompholobium</i> | <i>preissii</i> | 1 | 1 |
| | <i>Hardenbergia</i> | <i>comptoniana</i> | 1 | 1 |
| | <i>Hovea</i> | <i>chorizemifolia</i> | 1 | 1 |
| | <i>Hovea</i> | <i>trisperma</i> | 1 | 1 |
| | <i>Isotropis</i> | <i>cuneifolia</i> subsp. <i>cuneifolia</i> | 1 | 1 |
| | <i>Jacksonia</i> | <i>alata</i> | 1 | 1 |
| <i>Jacksonia</i> | <i>furcellata</i> | | 1 | |
| <i>Jacksonia</i> | <i>racemosa</i> | | 1 | |
| <i>Jacksonia</i> | <i>sternbergiana</i> | 1 | | |
| <i>Kennedia</i> | <i>coccinea</i> | 1 | 1 | |
| <i>Kennedia</i> | <i>microphylla</i> | | 1 | |
| <i>Kennedia</i> | <i>prostrata</i> | 1 | 1 | |
| * <i>Lotus</i> | <i>angustissimus</i> | 1 | | |
| * <i>Lotus</i> | <i>subbiflorus</i> | 1 | 1 | |
| * <i>Medicago</i> | <i>polymorpha</i> | | 1 | |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|------------------------------|--|--|-------------------------------|------------|
| PAPILIONACEAE (continued) | <i>Mirbelia</i> | <i>dilatata</i> | 1 | 1 |
| | <i>Mirbelia</i> | <i>floribunda</i> | | 1 |
| | <i>Mirbelia</i> | <i>spinosa</i> | 1 | |
| | P4 <i>Pultenaea</i> | <i>skinneri</i> | | 1 |
| | <i>Sphaerolobium</i> | <i>linophyllum</i> | 1 | 1 |
| | <i>Sphaerolobium</i> | <i>macranthum</i> | 1 | |
| | <i>Sphaerolobium</i> | <i>medium</i> | 1 | |
| | <i>Sphaerolobium</i> | <i>vimineum</i> | 1 | 1 |
| | <i>Sphaerolobium</i> | sp. | | |
| | P4 <i>Templetonia</i> | <i>drummondii</i> | 1 | 1 |
| | * <i>Trifolium</i> | <i>arvense</i> var. <i>arvense</i> | 1 | |
| | * <i>Trifolium</i> | <i>campestre</i> var. <i>campestre</i> | 1 | |
| | * <i>Trifolium</i> | <i>dubium</i> | 1 | |
| | * <i>Trifolium</i> | <i>fragiferum</i> var. <i>fragiferum</i> | 1 | |
| | * <i>Trifolium</i> | <i>subterraneum</i> | 1 | |
| | * <i>Trifolium</i> | sp. | 1 | |
| | * <i>Vicia</i> | <i>benghalensis</i> | 1 | |
| <i>Viminaria</i> | <i>juncea</i> | 1 | 1 | |
| Papilionaceae | sp. | | | |
| GERANIACEAE | * <i>Erodium</i> | <i>botrys</i> | 1 | |
| | <i>Erodium</i> | <i>cygnorum</i> | 1 | |
| | * <i>Erodium</i> | ? <i>moschatum</i> | 1 | |
| | * <i>Geranium</i> | <i>dissectum</i> | 1 | |
| | * <i>Geranium</i> | <i>molle</i> | 1 | 1 |
| | <i>Geranium</i> | <i>retrosum</i> | 1 | |
| | * <i>Pelargonium</i> | <i>capitatum</i> | 1 | |
| <i>Pelargonium</i> | <i>littorale</i> subsp. <i>littorale</i> | 1 | 1 | |
| OXALIDACEAE | * <i>Oxalis</i> | <i>glabra</i> | 1 | |
| | * <i>Oxalis</i> | <i>corniculata</i> | 1 | 1 |
| | <i>Oxalis</i> | ? <i>perennans</i> | 1 | |
| | * <i>Oxalis</i> | <i>pes-caprae</i> | 1 | |
| | * <i>Oxalis</i> | <i>purpurea</i> | 1 | |
| LINACEAE | <i>Linum</i> | <i>marginale</i> | 1 | 1 |
| RUTACEAE | <i>Boronia</i> | <i>crenulata</i> | 1 | |
| | <i>Boronia</i> | <i>crenulata</i> var. <i>crenulata</i> | 1 | 1 |
| | <i>Boronia</i> | aff. <i>defoliata</i> | | 1 |
| | <i>Boronia</i> | <i>fastigiata</i> | 1 | 1 |
| | <i>Boronia</i> | <i>molloyae</i> | | 1 |
| | <i>Boronia</i> | <i>ovata</i> | 1 | 1 |
| | <i>Boronia</i> | <i>spathulata</i> | 1 | |
| | P4 <i>Boronia</i> | <i>tenuis</i> | | 1 |
| | <i>Diplolaena</i> | <i>drummondii</i> | 1 | |
| <i>Diplolaena</i> | <i>microcephala</i> | 1 | | |
| <i>Philothea</i> | <i>spicata</i> | 1 | | |
| TREMADRACEAE | <i>Platytheca</i> | <i>galioides</i> | 1 | 1 |
| | <i>Tetratheca</i> | <i>confertifolia</i> | | 1 |
| | <i>Tetratheca</i> | <i>hirsuta</i> | 1 | 1 |
| | <i>Tetratheca</i> | <i>nuda</i> | 1 | |
| | P3 <i>Tetratheca</i> | <i>pilifera</i> | | 1 |
| <i>Tetratheca</i> | <i>virgata</i> | 1 | 1 | |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|-----------------|------------------------|--|-------------------------------|------------|
| POLYGALACEAE | <i>Comesperma</i> | <i>calymega</i> | 1 | 1 |
| | <i>Comesperma</i> | <i>polygaloides</i> | 1 | |
| | <i>Comesperma</i> | <i>virgatum</i> | 1 | 1 |
| | <i>Comesperma</i> | <i>volubile</i> | 1 | 1 |
| EUPHORBIACEAE | <i>Amperea</i> | <i>ericoides</i> | | 1 |
| | <i>Monotaxis</i> | <i>grandiflora</i> var. <i>grandiflora</i> | 1 | |
| | <i>Monotaxis</i> | <i>occidentalis</i> | 1 | 1 |
| | <i>Phyllanthus</i> | <i>calycinus</i> | 1 | 1 |
| | <i>Poranthera</i> | <i>huegelii</i> | 1 | 1 |
| | <i>Poranthera</i> | <i>microphylla</i> | 1 | |
| | Euphorbiaceae | sp. | 1 | |
| STACKHOUSIACEAE | <i>Stackhousia</i> | <i>monogyna</i> | 1 | 1 |
| | <i>Stackhousia</i> | <i>scoparia</i> | 1 | 1 |
| | <i>Tripterococcus</i> | <i>brunonis</i> | 1 | 1 |
| SAPINDACEAE | <i>Dodonaea</i> | <i>ceratocarpa</i> | 1 | 1 |
| | <i>Dodonaea</i> | <i>pinifolia</i> | | 1 |
| | <i>Dodonaea</i> | <i>viscosa</i> subsp. <i>angustissima</i> | 1 | 1 |
| | <i>Dodonaea</i> | <i>viscosa</i> subsp. <i>angustissima</i> (broad leaved) | 1 | |
| RHAMNACEAE | <i>Cryptandra</i> | <i>arbutiflora</i> | 1 | 1 |
| | <i>Cryptandra</i> | <i>nutans</i> | 1 | 1 |
| | P3 <i>Cryptandra</i> | <i>polyclada</i> subsp. <i>polyclada</i> | | 1 |
| | P3 <i>Stenanthemum</i> | <i>coronatum</i> | 1 | |
| | P1 <i>Stenanthemum</i> | <i>intropubens</i> (ms) | | 1 |
| | <i>Stenanthemum</i> | <i>nanum</i> | 1 | 1 |
| | P4 <i>Stenanthemum</i> | <i>tridentatum</i> | | 1 |
| | <i>Trymalium</i> | <i>floribundum</i> | 1 | 1 |
| | <i>Trymalium</i> | <i>ledifolium</i> | 1 | 1 |
| STERCULIACEAE | P4 <i>Lasiopetalum</i> | <i>cardiophyllum</i> | 1 | 1 |
| | <i>Lasiopetalum</i> | ? <i>cardiophyllum</i> (unusual form - hairy) | 1 | |
| | <i>Lasiopetalum</i> | <i>floribundum</i> | 1 | 1 |
| | <i>Lasiopetalum</i> | <i>glabratum</i> | 1 | |
| | <i>Thomasia</i> | <i>foliosa</i> | | 1 |
| | <i>Thomasia</i> | aff. <i>glutinosa</i> | 1 | |
| | <i>Thomasia</i> | <i>glutinosa</i> | 1 | 1 |
| | <i>Thomasia</i> | <i>glutinosa</i> var. <i>glutinosa</i> | 1 | |
| | <i>Thomasia</i> | <i>grandiflora</i> | | 1 |
| | <i>Thomasia</i> | <i>paniculata</i> | | 1 |
| <i>Thomasia</i> | <i>pauciflora</i> | | 1 | |
| DILLENIACEAE | <i>Hibbertia</i> | <i>acerosa</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>amplexicaulis</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>commutata</i> | 1 | 1 |
| | <i>Hibbertia</i> | aff. <i>commutata</i> | 1 | |
| | <i>Hibbertia</i> | <i>commutata</i> (grey form) | 1 | 1 |
| | <i>Hibbertia</i> | <i>diamesogenos</i> (ms) | 1 | |
| | <i>Hibbertia</i> | ? <i>glomerata</i> | 1 | |
| | <i>Hibbertia</i> | <i>gracilipes</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>hypericoides</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>lasiopus</i> | 1 | |
| | <i>Hibbertia</i> | <i>lasiopus/quadricolor</i> | 1 | |
| | <i>Hibbertia</i> | aff. <i>ovata</i> | 1 | |
| | <i>Hibbertia</i> | <i>perfoliata</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>pilosa</i> | 1 | |
| | <i>Hibbertia</i> | <i>polystachya</i> | 1 | 1 |

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(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|---------------|----------------------|---|----------------------|-----|
| DILLENIACEAE | <i>Hibbertia</i> | <i>serrata</i> | 1 | 1 |
| (continued) | <i>Hibbertia</i> | <i>silvestris</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>spicata</i> subsp. <i>spicata</i> | 1 | |
| | <i>Hibbertia</i> | <i>stellaris</i> | 1 | 1 |
| | <i>Hibbertia</i> | aff. <i>stellaris</i> | 1 | |
| | <i>Hibbertia</i> | <i>subvaginata</i> | 1 | 1 |
| | <i>Hibbertia</i> | <i>vaginata</i> | | 1 |
| VIOLACEAE | <i>Hybanthus</i> | <i>debilissimus</i> | 1 | |
| | <i>Hybanthus</i> | <i>floribundus</i> subsp. <i>floribundus</i> | 1 | 1 |
| THYMELAEACEAE | <i>Pimelea</i> | <i>angustifolia</i> | 1 | |
| | <i>Pimelea</i> | <i>ciliata</i> subsp. <i>ciliata</i> | 1 | |
| | <i>Pimelea</i> | <i>imbricata</i> var. <i>piliger</i> | 1 | 1 |
| | <i>Pimelea</i> | ? <i>lehmanniana</i> | | 1 |
| | <i>Pimelea</i> | <i>rosea</i> subsp. <i>rosea</i> | 1 | 1 |
| | <i>Pimelea</i> | <i>suaveolens</i> subsp. <i>suaveolens</i> | 1 | 1 |
| | <i>Pimelea</i> | <i>sylvestris</i> | 1 | 1 |
| LYTHRACEAE | * <i>Lythrum</i> | <i>hyssopifolia</i> | 1 | |
| MYRTACEAE | <i>Agonis</i> | <i>flexuosa</i> var. <i>flexuosa</i> | | 1 |
| | <i>Astartea</i> | <i>scoparia</i> | 1 | 1 |
| | <i>Baeckea</i> | <i>camphorosmae</i> | 1 | 1 |
| | <i>Baeckea</i> | aff. <i>crispiflora</i> | | 1 |
| | <i>Beaufortia</i> | <i>macrostemon</i> | | 1 |
| | <i>Calothamnus</i> | <i>planifolius</i> | 1 | 1 |
| | <i>Calothamnus</i> | <i>quadrifidus</i> | 1 | 1 |
| | <i>Calothamnus</i> | <i>sanguineus</i> | 1 | 1 |
| | <i>Calytrix</i> | <i>flavescens</i> | | 1 |
| | <i>Calytrix</i> | <i>leschenaultii</i> | | 1 |
| | P1 <i>Calytrix</i> | <i>simplex</i> subsp. <i>simplex</i> | | 1 |
| | <i>Corymbia</i> | <i>calophylla</i> | 1 | 1 |
| | <i>Darwinia</i> | <i>citriodora</i> | | 1 |
| | <i>Darwinia</i> | <i>thymoides</i> | 1 | 1 |
| | <i>Eucalyptus</i> | <i>accedens</i> | 1 | 1 |
| | <i>Eucalyptus</i> | <i>aspersa</i> | 1 | 1 |
| | <i>Eucalyptus</i> | <i>drummondii</i> subsp. <i>drummondii</i> (ms) | 1 | 1 |
| | P4 <i>Eucalyptus</i> | <i>latens</i> | 1 | |
| | ^ <i>Eucalyptus</i> | <i>maculata</i> | | 1 |
| | <i>Eucalyptus</i> | <i>marginata</i> | 1 | 1 |
| | ^ <i>Eucalyptus</i> | <i>megacarpa</i> | | 1 |
| | <i>Eucalyptus</i> | <i>patens</i> | 1 | 1 |
| | <i>Eucalyptus</i> | <i>rudis</i> | 1 | |
| | <i>Eucalyptus</i> | <i>wandoo</i> subsp. <i>wandoo</i> | 1 | 1 |
| | <i>Hypocalymma</i> | <i>angustifolium</i> | 1 | 1 |
| | <i>Hypocalymma</i> | <i>cordifolium</i> subsp. <i>cordifolium</i> | | 1 |
| | <i>Hypocalymma</i> | <i>robustum</i> | 1 | |
| | <i>Kunzea</i> | <i>recurva</i> | 1 | 1 |
| | <i>Leptospermum</i> | <i>erubescens</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>holosericea</i> | | 1 |
| | <i>Melaleuca</i> | <i>incana</i> subsp. <i>incana</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>lateritia</i> | 1 | |
| | <i>Melaleuca</i> | <i>preissiana</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>radula</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>rhapsiophylla</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>systema</i> | 1 | |
| | <i>Melaleuca</i> | <i>trichophylla/parviceps</i> | 1 | 1 |
| | <i>Melaleuca</i> | <i>viminea</i> subsp. <i>viminea</i> | 1 | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|-------------------------|-----------------------|---|-------------------------------|------------|
| MYRTACEAE (cotinued) | <i>Pericalymma</i> | <i>ellipticum</i> | 1 | 1 |
| | <i>Taxandria</i> | <i>linearifolia</i> (ms) | 1 | 1 |
| | <i>Verticordia</i> | <i>densiflora</i> | 1 | 1 |
| | <i>Verticordia</i> | <i>huegelii</i> var. <i>decumbens</i> | 1 | 1 |
| | <i>Verticordia</i> | <i>huegelii</i> var. <i>stylosa</i> | 1 | |
| | <i>Verticordia</i> | <i>pennigera</i> | 1 | 1 |
| | <i>Verticordia</i> | <i>picta</i> | | 1 |
| | <i>Verticordia</i> | <i>plumosa</i> | | 1 |
| | <i>Verticordia</i> | <i>serrata</i> | | 1 |
| | Myrtaceae | sp. | 1 | |
| ONAGRACEAE | <i>Epilobium</i> | <i>billardioreanum</i> | 1 | |
| HALORAGACEAE | <i>Glischrocaryon</i> | <i>aureum</i> | 1 | 1 |
| | <i>Glischrocaryon</i> | <i>aureum</i> var. <i>angustifolium</i> | 1 | 1 |
| | <i>Gonocarpus</i> | <i>benthamii</i> subsp. <i>benthamii</i> (ms) | | 1 |
| | <i>Gonocarpus</i> | <i>cordiger</i> | 1 | 1 |
| | <i>Gonocarpus</i> | <i>hexandrus</i> subsp. <i>integrifolius</i> | | |
| | <i>Gonocarpus</i> | <i>pithyoides</i> | 1 | 1 |
| | <i>Haloragus</i> | <i>?hamata</i> | 1 | |
| APIACEAE | <i>Apium</i> | <i>prostratum</i> var. <i>prostratum</i> | | 1 |
| | <i>Daucus</i> | <i>glochidiatus</i> | 1 | |
| | <i>Eryngium</i> | <i>pinnatifidum</i> subsp. <i>pinnatifidum</i> (ms) | 1 | 1 |
| | <i>Homalosciadium</i> | <i>homalocarpum</i> | 1 | |
| | <i>Hydrocotyle</i> | <i>blepharocarpa</i> | 1 | |
| | <i>Hydrocotyle</i> | <i>callicarpa</i> | 1 | |
| | <i>Hydrocotyle</i> | <i>diantha</i> | 1 | |
| | <i>Pentapeltis</i> | <i>peltigera</i> | 1 | 1 |
| | <i>Platysace</i> | <i>filiformis</i> | 1 | 1 |
| | <i>Platysace</i> | <i>juncea</i> | | 1 |
| | <i>Platysace</i> | <i>tenuissima</i> | 1 | |
| | <i>Trachymene</i> | <i>ornata</i> | | 1 |
| | <i>Trachymene</i> | <i>pilosa</i> | 1 | 1 |
| | <i>Xanthosia</i> | <i>atkinsoniana</i> | 1 | 1 |
| | <i>Xanthosia</i> | <i>candida</i> | 1 | 1 |
| <i>Xanthosia</i> | <i>ciliata</i> | 1 | | |
| <i>Xanthosia</i> | <i>huegelii</i> | 1 | 1 | |
| EPACRIDACEAE | <i>Andersonia</i> | <i>involutrata</i> | | 1 |
| | <i>Andersonia</i> | <i>latiflora</i> | 1 | 1 |
| | <i>Andersonia</i> | <i>lehmanniana</i> | 1 | 1 |
| | <i>Astroloma</i> | <i>ciliatum</i> | 1 | 1 |
| | <i>Astroloma</i> | <i>compactum</i> | 1 | 1 |
| | <i>Astroloma</i> | <i>drummondii</i> | 1 | 1 |
| | <i>Astroloma</i> | <i>epacridis</i> | 1 | 1 |
| | <i>Astroloma</i> | <i>pallidum</i> | 1 | 1 |
| | <i>Astroloma</i> | aff. <i>pallidum</i> | | 1 |
| | <i>Leucopogon</i> | <i>australis</i> | 1 | 1 |
| | <i>Leucopogon</i> | <i>capitellatus</i> | 1 | 1 |
| | <i>Leucopogon</i> | <i>conostephioides</i> | | 1 |
| | <i>Leucopogon</i> | <i>?cordatus</i> | 1 | |
| | <i>Leucopogon</i> | <i>glabellus</i> | 1 | |
| | <i>Leucopogon</i> | <i>hirsutus</i> | | 1 |
| | <i>Leucopogon</i> | <i>nutans</i> | 1 | 1 |
| | <i>Leucopogon</i> | <i>propinquus</i> | 1 | 1 |
| | <i>Leucopogon</i> | <i>?pulchellus</i> | | 1 |
| | <i>Leucopogon</i> | <i>sprengelioides</i> | 1 | |
| | <i>Leucopogon</i> | <i>tenuis</i> | | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|------------------|------------------------|---|-------------------------------|------------|
| EPACRIDACEAE | <i>Leucopogon</i> | <i>verticillatus</i> | 1 | 1 |
| (continued) | <i>Leucopogon</i> | sp. (DAH 808162) | | 1 |
| | <i>Leucopogon</i> | glabellus (glabrous form) | 1 | 1 |
| | <i>Leucopogon</i> | glabellus (hairy form) | 1 | 1 |
| | <i>Lysinema</i> | <i>ciliatum</i> | | 1 |
| | <i>Styphelia</i> | <i>tenuiflora</i> | 1 | 1 |
| | Epacridaceae | sp. | 1 | |
| PRIMULACEAE | * <i>Anagallis</i> | <i>arvensis</i> | 1 | 1 |
| | <i>Samolus</i> | <i>juncus</i> | 1 | 1 |
| LOGANIACEAE | <i>Logania</i> | <i>campanulata</i> | | 1 |
| | <i>Logania</i> | <i>serpyllifolia</i> | 1 | 1 |
| | <i>Phyllangium</i> | <i>paradoxum</i> | 1 | |
| GENTIANACEAE | * <i>Centaurium</i> | <i>erythraea</i> | 1 | 1 |
| BORAGINACEAE | <i>Halgania</i> | <i>anagalloides</i> var. <i>preissiana</i> (ms) | 1 | 1 |
| | P3 <i>Halgania</i> | <i>corymbosa</i> | 1 | |
| LAMIACEAE | <i>Hemiandra</i> | <i>pungens</i> | 1 | 1 |
| | <i>Hemigenia</i> | ? <i>canescens</i> (DAH 808167) | 1 | |
| | <i>Hemigenia</i> | <i>drummondii</i> | 1 | |
| | <i>Hemigenia</i> | <i>incana</i> | 1 | |
| | <i>Hemigenia</i> | <i>rigida</i> | 1 | 1 |
| | <i>Hemigenia</i> | <i>sericea</i> | | 1 |
| | <i>Hemigenia</i> | aff. <i>sericea</i> (Perth Flora) | | 1 |
| | * <i>Lavandula</i> | <i>stoechas</i> | | 1 |
| | * <i>Stachys</i> | <i>arvensis</i> | 1 | 1 |
| SOLANACEAE | * <i>Solanum</i> | <i>nigrum</i> | 1 | |
| SCROPHULARIACEAE | * <i>Bartsia</i> | <i>trixago</i> | 1 | |
| | * <i>Parentucellia</i> | <i>latifolia</i> | 1 | |
| | * <i>Parentucellia</i> | <i>viscosa</i> | 1 | 1 |
| OROBANCHACEAE | * <i>Orobanche</i> | <i>minor</i> | 1 | |
| LENTIBULARIACEAE | <i>Utricularia</i> | <i>inaequalis</i> | 1 | |
| | <i>Utricularia</i> | <i>menziesii</i> | | 1 |
| | <i>Utricularia</i> | <i>multifida</i> | 1 | |
| PLANTAGINACEAE | * <i>Plantago</i> | <i>lanceolata</i> | 1 | |
| RUBIACEAE | * <i>Galium</i> | <i>divaricatum</i> | 1 | |
| | * <i>Galium</i> | <i>murale</i> | 1 | |
| | <i>Opercularia</i> | <i>apiciflora</i> | 1 | 1 |
| | <i>Opercularia</i> | <i>echinocephala</i> | 1 | 1 |
| | <i>Opercularia</i> | <i>hispidula</i> var. <i>hispidula</i> | 1 | |
| | <i>Opercularia</i> | <i>vaginata</i> | 1 | 1 |
| CAMPANULACEAE | <i>Wahlenbergia</i> | <i>multicaulis</i> | 1 | 1 |
| | <i>Wahlenbergia</i> | <i>preissii</i> | 1 | |
| LOBELIACEAE | <i>Isotoma</i> | <i>hypocrateriformis</i> | 1 | 1 |
| | <i>Lobelia</i> | <i>alata</i> | 1 | 1 |
| | <i>Lobelia</i> | <i>gibbosa</i> | 1 | 1 |
| | <i>Lobelia</i> | <i>heterophylla</i> | 1 | 1 |
| | <i>Lobelia</i> | <i>rhubifolia</i> | 1 | 1 |

APPENDIX A: VASCULAR PLANT SPECIES IN THE BODDINGTON AREA

(BBM - recorded at Bauxite Mine - Mt Saddleback; BGM and Hedges - recor
 ^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM | |
|---------------------|---------------------|-------------------------------------|-------------------------------|------------|---|
| GOODENIACEAE | <i>Dampiera</i> | <i>alata</i> | 1 | 1 | |
| | <i>Dampiera</i> | <i>eriocephala</i> | | 1 | |
| | <i>Dampiera</i> | <i>hederacea</i> | 1 | 1 | |
| | <i>Dampiera</i> | <i>lavandulacea</i> | | 1 | |
| | <i>Dampiera</i> | <i>linearis</i> | 1 | 1 | |
| | <i>Goodenia</i> | <i>affinis</i> | 1 | | |
| | <i>Goodenia</i> | <i>caerulea</i> | 1 | | |
| | <i>Goodenia</i> | <i>convexa</i> | 1 | 1 | |
| | <i>Goodenia</i> | <i>eatoniana</i> | | 1 | |
| | <i>Goodenia</i> | <i>filiformis</i> | 1 | | |
| | <i>Goodenia</i> | aff. <i>hassallii</i> (JK36) | | 1 | |
| | <i>Goodenia</i> | <i>incana</i> | | 1 | |
| | <i>Goodenia</i> | aff. <i>leptoclada</i> (DAH 810182) | | 1 | |
| | <i>Goodenia</i> | <i>pusilla</i> | 1 | | |
| | <i>Lechenaultia</i> | <i>biloba</i> | 1 | 1 | |
| | <i>Lechenaultia</i> | <i>expansa</i> | 1 | 1 | |
| | <i>Scaevola</i> | <i>calliptera</i> | 1 | 1 | |
| | <i>Scaevola</i> | <i>glandulifera</i> | 1 | 1 | |
| | <i>Scaevola</i> | <i>pilosa</i> | 1 | 1 | |
| | <i>Scaevola</i> | <i>platyphylla</i> | 1 | 1 | |
| | <i>Scaevola</i> | <i>repens</i> var. <i>repens</i> | 1 | | |
| | <i>Velleia</i> | <i>trinervis</i> | 1 | 1 | |
| | STYLIDIACEAE | <i>Levenhookia</i> | <i>pusilla</i> | 1 | |
| <i>Levenhookia</i> | | <i>stipitata</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>affine</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>amoenum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>brunonianum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>bulbiferum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>calcaratum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>caricifolium</i> | 1 | | |
| <i>Stylidium</i> | | ? <i>carnosum</i> | 1 | | |
| <i>Stylidium</i> | | <i>ciliatum</i> | 1 | | |
| <i>Stylidium</i> | | <i>crassifolium</i> | | 1 | |
| <i>Stylidium</i> | | <i>dichotomum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>diversifolium</i> | | 1 | |
| <i>Stylidium</i> | | <i>glaucum</i> | | 1 | |
| <i>Stylidium</i> | | <i>hispidum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>junceum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>lineatum</i> | | 1 | |
| P3 <i>Stylidium</i> | | <i>marradongense</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>petiolare</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>piliferum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>pulchellum</i> | | 1 | |
| <i>Stylidium</i> | | <i>repens</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>rhynchocarpum</i> | | 1 | |
| <i>Stylidium</i> | | <i>roseo-alatum</i> | 1 | | |
| <i>Stylidium</i> | | <i>scandens</i> | 1 | | |
| <i>Stylidium</i> | | ? <i>scandens</i> (unusual form) | 1 | | |
| <i>Stylidium</i> | | <i>schoenoides</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>spathulatum</i> | 1 | 1 | |
| <i>Stylidium</i> | | <i>thesioides</i> | 1 | | |
| <i>Stylidium</i> | | <i>uniflorum</i> | 1 | 1 | |
| ASTERACEAE | | * <i>Arctotheca</i> | <i>calendula</i> | 1 | |
| | | P3 <i>Asteridea</i> | <i>gracilis</i> | | 1 |
| | | <i>Brachyscome</i> | <i>bellidioides</i> | 1 | |
| | <i>Brachyscome</i> | <i>iberidifolia</i> | 1 | | |
| | * <i>Centaurea</i> | <i>melitensis</i> | 1 | | |

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^ - planted species, * - introduced species, P1 to P4 - Priority species

| FAMILY | GENUS | SPECIES | BGM and Hedges | BBM |
|---------------|---------------------------|--|-------------------------------|------------|
| ASTERACEAE | * <i>Conyza</i> | <i>bonariensis</i> | 1 | 1 |
| (continued) | * <i>Conyza</i> | <i>sumatrensis</i> | 1 | |
| | <i>Cotula</i> | <i>coronopifolia</i> | 1 | |
| | <i>Craspedia</i> | <i>variabilis</i> | 1 | 1 |
| | * <i>Dittrichia</i> | <i>graveolens</i> | 1 | 1 |
| | <i>Euchiton</i> | <i>sphaericus</i> | 1 | 1 |
| | <i>Gnephosis</i> | <i>drummondii</i> | | 1 |
| | <i>Helichrysum</i> | <i>leucopsidium</i> | 1 | 1 |
| | <i>Helichrysum</i> | <i>macranthum</i> | 1 | 1 |
| | <i>Hyalosperma</i> | <i>cotula</i> | 1 | |
| | <i>Hyalosperma</i> | <i>demissum</i> | | 1 |
| | * <i>Hypochaeris</i> | <i>glabra</i> | 1 | 1 |
| | <i>Lactuca</i> | <i>serriola</i> | 1 | |
| | <i>Lagenophora</i> | <i>huegelii</i> | 1 | 1 |
| | <i>Millotia</i> | <i>tenuifolia</i> var. <i>tenuifolia</i> | 1 | |
| | <i>Olearia</i> | <i>pauidentata</i> | 1 | 1 |
| | <i>Ozothamnus</i> | <i>ramosus</i> | | 1 |
| | P2 <i>Pithocarpa</i> | <i>corymbulosa</i> | | 1 |
| | <i>Podolepis</i> | <i>canescens</i> | 1 | 1 |
| | <i>Podolepis</i> | <i>gracilis</i> | 1 | 1 |
| | <i>Podolepis</i> | <i>lessonii</i> | 1 | |
| | <i>Podotheca</i> | <i>angustifolia</i> | 1 | |
| | <i>Podotheca</i> | <i>chrysantha</i> | 1 | |
| | * <i>Pseudognaphalium</i> | <i>luteoalbum</i> | 1 | 1 |
| | <i>Pterochaeta</i> | <i>paniculata</i> | 1 | 1 |
| | <i>Quinetia</i> | <i>urvillei</i> | 1 | 1 |
| | ^ <i>Rhodanthe</i> | <i>chlorocephala</i> subsp. <i>splendida</i> | 1 | |
| | <i>Rhodanthe</i> | <i>citrina</i> | 1 | 1 |
| | ^ <i>Rhodanthe</i> | <i>floribunda</i> | 1 | |
| | <i>Rhodanthe</i> | <i>manglesii</i> | 1 | |
| | * <i>Senecio</i> | <i>diaschides</i> | 1 | |
| | <i>Senecio</i> | <i>glossanthus</i> | | |
| | <i>Senecio</i> | <i>hispidulus</i> | 1 | 1 |
| | P4 <i>Senecio</i> | <i>leucoglossus</i> | 1 | 1 |
| | <i>Senecio</i> | <i>pinnatifolius</i> | 1 | 1 |
| | <i>Senecio</i> | <i>quadridentatus</i> | 1 | |
| | <i>Senecio</i> | <i>spanomerus</i> | 1 | 1 |
| | * <i>Senecio</i> | <i>vulgaris</i> | 1 | |
| | <i>Siloxerus</i> | <i>filifolius</i> | 1 | |
| | <i>Siloxerus</i> | <i>humifusus</i> | 1 | |
| | <i>Siloxerus</i> | <i>multiflorus</i> | 1 | |
| | * <i>Silybum</i> | <i>marianum</i> | | 1 |
| | * <i>Sonchus</i> | <i>asper</i> subsp. <i>glaucescens</i> | 1 | |
| | * <i>Sonchus</i> | <i>oleraceus</i> | 1 | |
| | * <i>Symphyotrichum</i> | <i>squamatum</i> | 1 | 1 |
| | <i>Trichocline</i> | <i>spathulata</i> | 1 | 1 |
| | * <i>Ursinia</i> | <i>anthemoides</i> | 1 | 1 |
| | * <i>Vellereophyton</i> | <i>dealbatum</i> | 1 | 1 |
| | <i>Vittadinia</i> | ? <i>australasica</i> | | 1 |
| | <i>Waitzia</i> | <i>acuminata</i> | 1 | |
| | <i>Waitzia</i> | <i>acuminata</i> var. <i>acuminata</i> | 1 | |
| | <i>Waitzia</i> | <i>acuminata</i> var. <i>albicans</i> | 1 | |
| | <i>Waitzia</i> | <i>suaveolens</i> var. <i>suaveolens</i> | 1 | |
| | <i>Xerochrysum</i> | <i>bracteatum</i> | 1 | |
| | Asteraceae | sp. | 1 | |