GCCC information request – 98 Glenmore Drive, Bonogin
GCCC reference: ROL/2026/37

Environmental and Bushfire
12. Strategic Framework
3.7 Living with Nature
3.7.4 Element Nature Conservation
3.7.4.1 – Specific Outcomes
(1) The Gold Coast's biodiversity areas and other matters of environmental significance are conserved, protected, enhanced and managed to maintain a diversity of terrestrial, aquatic and marine species, ecosystems and ecological processes. Poorly protected regional ecosystems and habitat for threatened species, such as koalas, are enhanced.

(3) The city's matters of environmental significance include:
(e) habitat for threatened species, such as koalas.

(5) Outside biodiversity areas: high priority vegetation is protected in situ; buffers are provided to wetlands and waterways; degraded areas are restored where this improves habitat or connectivity; and development includes the consideration of alternative designs and the separation of incompatible activities to minimise the impacts on matters of environmental significance.

The Ecological assessment for 98 Glenmore Drive submitted by Ultimate Planning Solutions, February 2026 identified numerous foraging sites (chewed orts) for the Glossy Black Cockatoo (GBC) (Calyptorhynchus lathami lathami) – which has the following conservation status:
• Vulnerable – Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act)
• Vulnerable – Queensland Nature Conservation Act 1992
• Priority species (L1) – City Plan 2016

Six foraging sites for the Glossy Black Cockatoo were identified in the southeastern part of the site of which three are contained within the covenant area – two of which in the outer edge of the covenant area.

The Ecological site assessment is considered a relevant matter under an Impact Assessment application.
The applicant is requested to prepare and submit an amended plan of development and environmental covenant areas by including 5 of the 6 foraging sites in the southeast of the site into the covenant areas:
a. A minimum 30m buffer is to be provided GBC feed trees (forage site).
b. Lot 12 is to be part deleted and could be part amalgamated into Lot 11.
c. The covenant area in Lot 13 is to be extended to capture the forage site record.
Note: City Officers are available to workshop this issue.

14. Setback to Waterway
PO5 Environmental significance overlay code
The applicant is requested to increase the width of the environmental covenant area from 10m to 15m width from the primary waterway channel for Lots 17 & 18. A retaining wall external to the covenant area to facilitate this outcome is accepted for Lots 17 & 18.

The applicant is requested to increase the minor width of the environmental covenant area to 60m from the Major waterway mapping (Bonogin creek) and State wetland mapping. This impacts on the viability of Lot 12 which has been requested to be part deleted in Point 2 of this Information request

APPLICANT RESPONSE
After workshopping the issue with GCCC, the following additional avoidance/minimisation design measures have been incorporated:

- Lot 12 has been deleted
- The environmental protection area has been expanded to incorporated:

- An additional GBC forage site plus a 15m buffer
- An expansion of the minor waterway buffer adjacent Lots 17 and 18 to 15 metres in width (per RFI item 14)
- An expansion of the minimum waterway buffer in the southeast from 50 metres to 65 metres (per RFI item 14)
- Overall increase in area from 5.43ha to 5.58ha

15. Medium priority vegetation

PO10 Environmental significance overlay code

The applicant is requested to confirm the extent of Medium priority vegetation (area) that is to be removed for the purposes of calculating the MLES environmental offset.

APPLICANT RESPONSE

The area of least concern MPV to be removed is 0.9967 ha. The current MLES3 applicable financial offset in accordance with SC6.9 City Plan policy – Environmental offsets are calculated to be $249,502.91

Financial settlement offset calculator

Payment details

Non-protected area cost

On ground cost	$59,802.00
Landholder incentive payment	$174,750.41
Administrative cost	$14,950.50
Total non-protected area cost	$249,502.91

Protected area cost

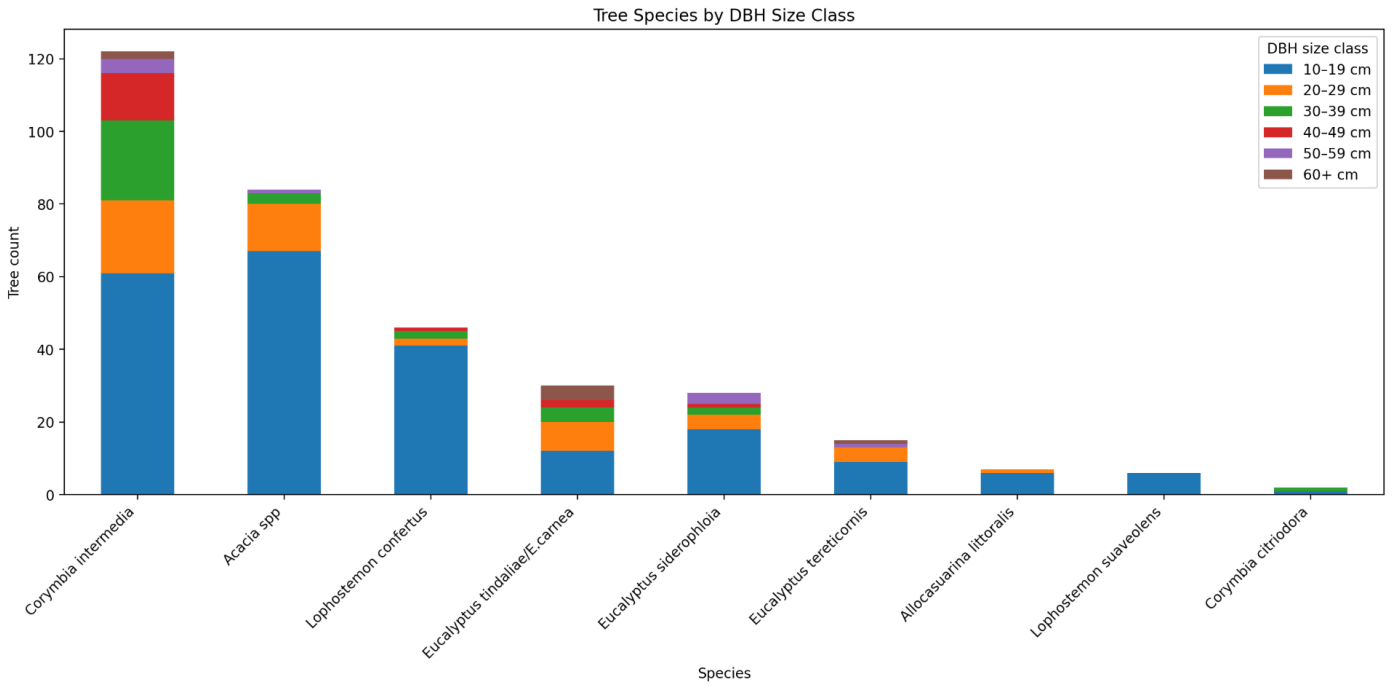
Total protected area cost	$0.00

Total cost

Grand total	$249,502.91

All native trees within the MPV impact area were identified and included 340 native trees. The survey is strongly dominated by Corymbia intermedia, with 122 trees or approximately 36% of all records. The next most common species is Acacia spp with 84 trees or around 25%, followed by Lophostemon confertus (whipstick) with 46 trees. Together, these three species account for approximately 75% of all identified trees. The tree population is generally weighted toward smaller stems. Approximately 65% of trees fall within the 10–19 cm DBH size class, with a further 15% in the 20–29 cm DBH class. Only 33 trees are greater than 40 cm DBH, representing approximately 9.7% of the total survey.

In summary, the impact is characterised by a moderate number of relatively small trees, with the species composition dominated by Corymbia intermedia and Acacia spp with Lophostemon confertus associated.



16. Rehabilitation of Environmental covenant area

PO23 and PO26 Environmental significance overlay code

The site has areas of weed infestation after cattle were removed from the property approximately 16 years ago. The applicant is proposing an environmental covenant area instead of public open space dedication which creates concern of ongoing weed management within the areas of environmental significance.

The applicant is requested to provide a Combined Covenant management plan and Rehabilitation management plan for the environmental covenant area. Rehabilitation is to include the following:

a. Rehabilitation of the covenant area is requested to be for a 4 year timeframe to allow for the management of threatening weeds by experienced assisted regeneration practitioners.

b. Landowners would be advised of the arrangement and an agreement would be required to allow for access for bush regenerators for the duration of the 4 years covenant management plan. A property notification will be added to the decision notice.

Note: Consideration would be given to allow for bonding after a minimum of 12 months rehabilitation.

APPLICANT RESPONSE

The Rehabilitation Management Plan has been updated and expanded to form a combined Covenant and Rehabilitation Management Plan, as requested. The updated plan provides a coordinated framework for the rehabilitation, establishment, maintenance and ongoing management of the proposed environmental covenant area, including targeted weed control and assisted natural regeneration measures.

The applicant acknowledges Council's concern regarding the need to ensure the covenant area is appropriately managed, particularly given the existing weed presence following the cessation of cattle grazing on the property. The updated management plan responds to this concern by setting out practical rehabilitation actions, monitoring requirements and maintenance responsibilities to support the long-term ecological function of the covenant area.

However, the requested four-year rehabilitation and management timeframe is considered onerous in the circumstances. Similar covenant and rehabilitation management plans approved across the City have typically adopted shorter establishment and maintenance periods, including a 12-month establishment period followed by a 12-month maintenance period, consistent with the framework contemplated under SC6.8 City Plan Policy – Environmental Management Plans, Section 7.4.

As such to provide Council with additional certainty regarding the successful establishment and management of the covenant area, the applicant has adopted a 2-year management timeframe within the updated plan. This is considered to represent a reasonable and relevant outcome, providing an extended period for weed management, assisted regeneration, monitoring and corrective actions, while avoiding an unnecessarily onerous requirement on future landowners.

The applicant is agreeable to future landowners being made aware of the covenant management obligations, including through an appropriate property notation on the decision notice. The applicant also acknowledges that access arrangements will be required to allow suitably qualified bush regeneration contractors to undertake works within the covenant area during the management period.

On this basis, the updated combined Covenant and Rehabilitation Management Plan is considered to adequately respond to the intent of PO23 and PO26 of the Environmental Significance Overlay Code by securing the rehabilitation and ongoing management of the environmental covenant area in a practical, enforceable and ecologically appropriate manner.

Should you have any questions regarding the above please do not hesitate to contact me on the above email or phone number.

Yours sincerely



Graham Dart
Senior Ecologist

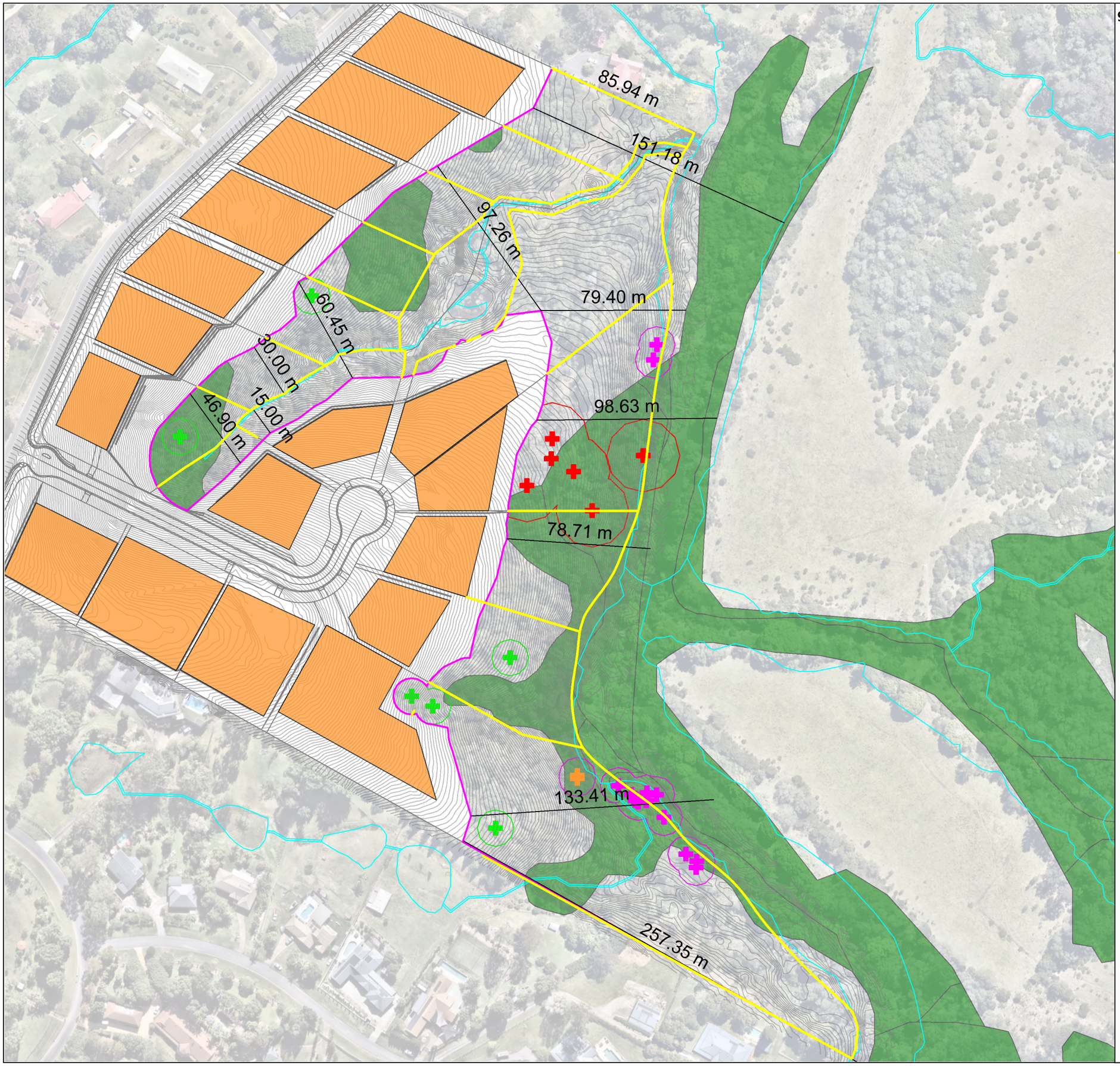
Attachments:
Updated Environmental Protection Summary Plan
Covenant and Rehabilitation Management Plan
Medium Priority Vegetation Significant Residual Impact Plan

ULTIMATE PLANNING SOLUTIONS

ATTACHMENT 1

UPDATED ENVIRONMENTAL PROTECTION SUMMARY PLAN

Telephone: 07 5649 8665 **Web:** ultimateplanning.com.au



98 Glenmore Road, Bonogin Summary

Building Envelope Areas-
All clearing of native vegetation restricted to these areas
All domestic animals and/or production animals restricted to these areas

Environmental Covenant / Rehabilitation Area-

Prohibition of native vegetation clearing except where expressly approved by Council
Prohibition of activities that could adversely affect ecological values, including placement of fill, vehicle parking, storage of materials, or construction of ancillary structures

Restriction of fencing to koala-friendly designs consistent with the DES (2022) Koala-Sensitive Design Guidelines

Retained Remnant (Category B) and Regrowth (Category C) Regional Ecosystems including koala habitat

Hollow-bearing Trees

Macadamia integrifolia

Rhodamnia rubescens

Glossy Black Cockatoo Forage Site

N
W E
S

ULTIMATE PLANNING SOLUTIONS

ATTACHMENT 2

UPDATED COVENANT & REHABILITATION MANAGEMENT PLAN

Telephone: 07 5649 8665 **Web:** ultimateplanning.com.au

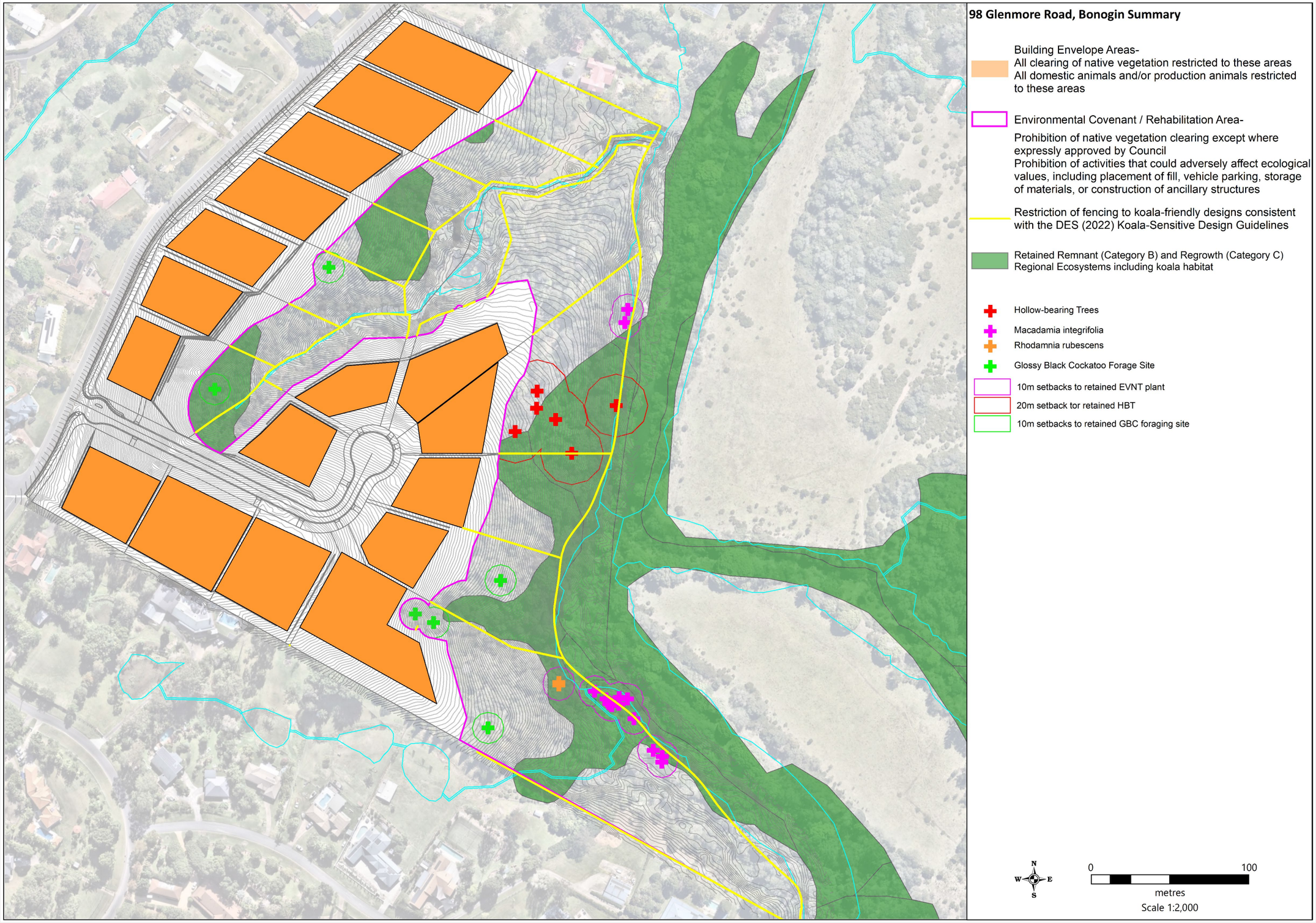


FIGURE 1: COVENANT & REHABILITATION AREA SUMMARY

ULTIMATE PLANNING SOLUTIONS

Address: 4/113 Scarborough Street, Southport
Telephone: (07) 5649 8665
Email: admin@ultimateplanning.com.au

CLIENT:	ADDRESS:	DRAWING TITLE:
SALT DEVELOPMENT PROJECTS	98 GLENMORE DRIVE, BONOGIN	COVENANT & REHABILITATION MANAGEMENT PLAN

Author	Project No.	Scale	Date	Rev.
GD	UP26019	As shown	JUL 2026	B

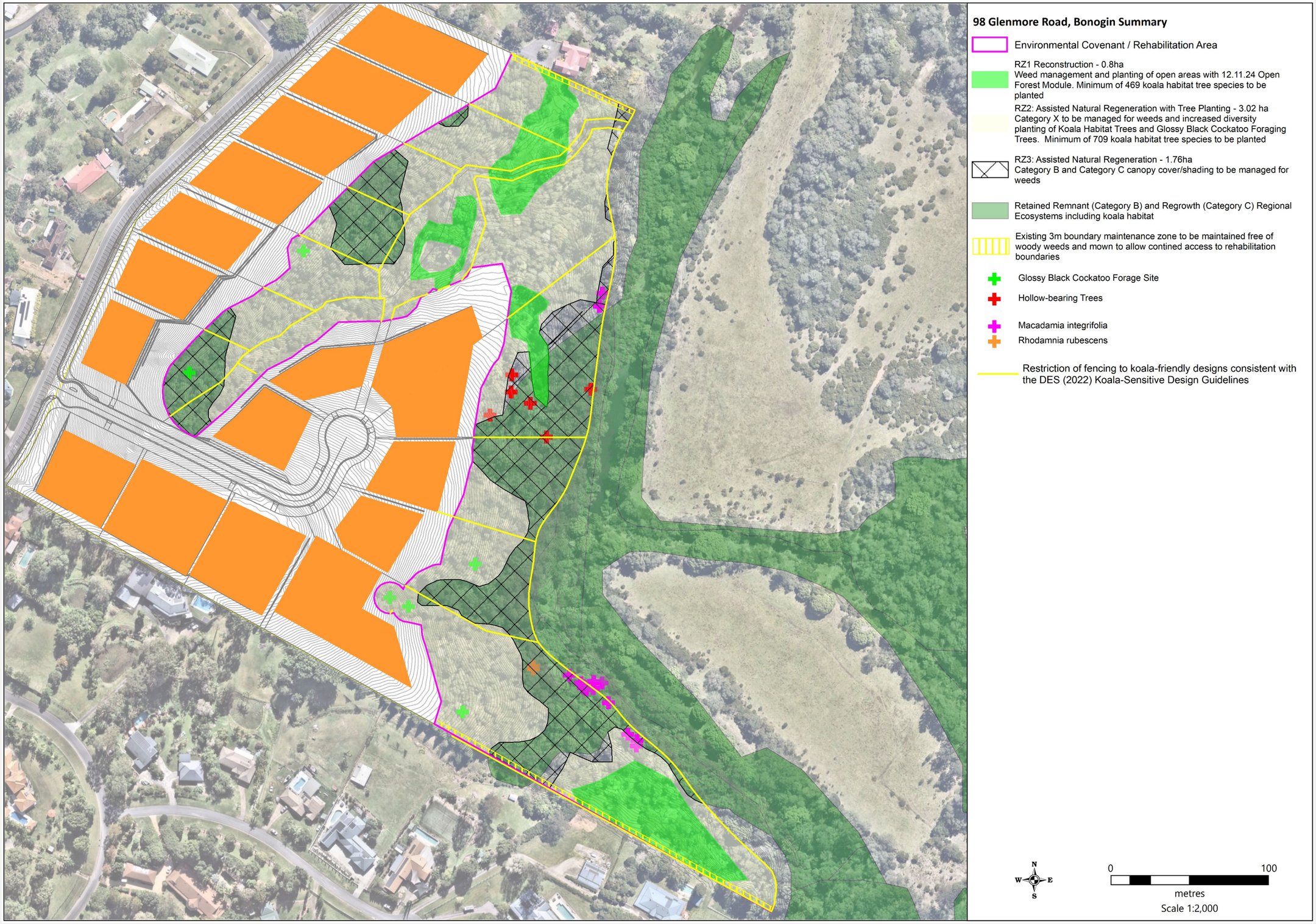


FIGURE 2: REHABILITATION ZONES

ULTIMATE PLANNING SOLUTIONS
Address: 4/113 Scarborough Street, Southport
Telephone: (07) 5649 8665
Email: admin@ultimateplanning.com.au

CLIENT: SALT DEVELOPMENT PROJECTS

ADDRESS: 98 GLENMORE DRIVE, BONOGIN

DRAWING TITLE: COVENANT & REHABILITATION MANAGEMENT PLAN

Author	Project No.	Scale	Date	Rev.
GD	UP26019	As shown	JUL 2026	B

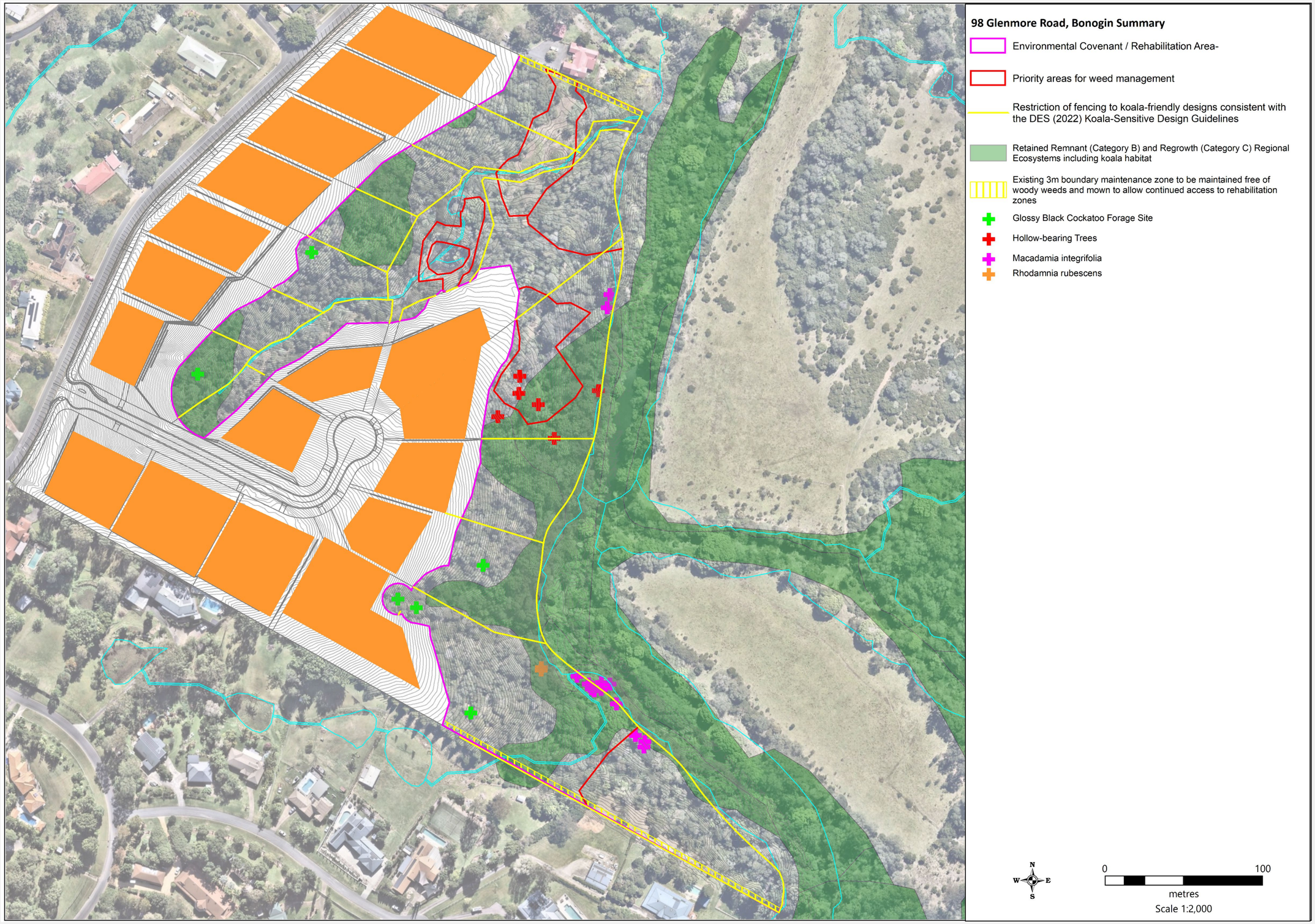


FIGURE 3: PRIORITY WEED MANAGEMENT AREAS

ULTIMATE PLANNING SOLUTIONS
Address: 4/113 Scarborough Street, Southport
Telephone: (07) 5649 8665
Email: admin@ultimateplanning.com.au

CLIENT: SALT DEVELOPMENT PROJECTS

ADDRESS: 98 GLENMORE DRIVE, BONOGIN

DRAWING TITLE: COVENANT & REHABILITATION MANAGEMENT PLAN

Author	Project No.	Scale	Date	Rev.
GD	UP26019	As shown	JUL 2026	B

1.0 INTRODUCTION

This Covenant & Rehabilitation Management Plan (ECMP) has been prepared in support of the proposed 17 lot subdivision located at 98 Glenmore Drive, Bonogin and in relation to the environmental covenant intended to be established in the rear of the site. Preparation of a ECMP is a recommendation of the prepared Ecological Assessment for the site.

This ECMP provides a framework for the retention, protection, enhancement and use of the environmental values of the Covenant through the following:

-Provide practical and achievable plans for the management and rehabilitation of the Covenant areas to ensure that conditions of development approval are complied with, by producing an integrated framework for monitoring and control of the nominated areas;

-Provide local/state authorities with a mechanism to ensure the owner and/or successors in title (the 'future owners') or their agents do not intentionally or wilfully clear, damage or destroy any area relating to the conservation of the physical and/or natural features subject to a statutory covenant within the development;

Provide local/state authorities and future owners with a framework to confirm compliance with the conditions of approval relating to Covenant management; and

Provide the community with evidence of the ongoing management of the development in an environmentally acceptable manner.

The objectives of this CMP includes:

- Ensuring that koala habitat and native vegetation contained within the covenant is conserved, preserved and enhanced in perpetuity by maintaining a ground layer, understorey and canopy that is consistent with the nominated rehabilitation zones and existing regional ecosystems;
- Providing mechanisms for the retention, protection and rehabilitation of koala habitat;
- Protection of the environmental values of the covenant through limiting native vegetation disturbance

This intent will be progressed through the implementation of the following within Covenant areas:

- Management controls to limit the impacts of development and anthropogenic activity which may potentially cause adverse impacts; and
- Rehabilitation Strategy addressing weed management and rehabilitation with native species

2.0 COVENANT RESPONSIBILITIES AND PROHIBITED ACTIONS

It is the responsibility of the owner (or successive owner(s)) to ensure that all works required by this CMP are implemented for the life of the development. This is to include all listed actions, monitoring and reporting tasks performed where specified for the life of the development and any corrective actions necessitated through non-compliance with the relevant sections of this CMP.

In accordance with Gold Coast City Planning Scheme Policy 6.8-Environmental Management Plans the following activities are prohibited within the covenant area:

- No native vegetation clearing is to occur within the Covenant except where specifically outlined in this report or otherwise approved by Council. For the purposes of this CMP

  'native vegetation' is defined as follows:
  trees, bushes, plants, shrubs, flowers and other flora including (where the context so admits or requires) native grasses, algae, fungi and the like but excluding plants listed as an invasive naturalized plant of Southeast Queensland per Queensland Herbarium (2002).

- Construction of new fixtures and/or improvements of any kind within Covenant areas is prohibited unless otherwise approved by Council;
- Construction of trails or paths of any kind within Covenant areas is prohibited unless documented within this CMP or otherwise approved by Council;
- Domestic animals are prohibited from being kept within Covenant areas or entering such areas unless restrained at all times;
- Production animals and/or livestock or similar, including but not limited to horses, cattle, sheep and goats, are prohibited from being kept within Covenant areas or entering such areas;

Any additional activity occurring within the Covenant area which may have an adverse impact on the ecological integrity/environmental value of the Covenant is prohibited. This includes, but is not limited to:

- Deposition of any fill, soil, rock, rubbish, ashes, garbage, waste or other material foreign;
- Light fires;
- Parking of vehicles;
- Storage of equipment;

Formal written approval for any of the above listed activities must be obtained from Gold Coast City Council (City Development Planning and Environment section) prior to undertaking the activity. It must be noted that it is the intent of the covenant for these activities not to be performed and approval from GCCC is unlikely unless over-riding merit is established to the satisfaction of the Council. Any such approval must be appended to the approved Covenant Management Plan.

FENCING

- Any new fencing within the designated covenant area is to be reflective of Koala friendly fence. For the purposes of this RMP a koala friendly fence is any fence which complies with DES (2022) Koala- sensitive Design Guideline A guide to koala-sensitive design measures for planning and development activities (refer Section 8).

Please note that construction of a boundary fence is not a requirement of this covenant management plan but stipulates the standard required for the nominated fencing if it installed in future.

DURATION OF COVENANT MANAGEMENT PLAN

The duration of this Covenant Management Plan shall be for the life of the development unless otherwise amended by Gold Coast City Council and will apply to the allotment regardless of future ownership succession.

ADMINISTRATIVE PROVISIONS

In accordance with the approval conditions an instrument of covenant is to be registered on the allotment title and the covenant area shown as 'Covenant Area' on the face of the allotment plan to be registered under the Land Title Act 1994. This instrument of covenant is to reflect entirely the requirements of the future Development Permit for Reconfiguration of a Lot issued and also nominate that this Covenant Management Plan (as approved) is to be implemented over the life of the development within the Covenant Area.

A property notification will be included on all future lots advising that a Covenant and Rehabilitation Plan binds future activities within the covenant and future owners are required to allow for access for bush regenerators for the duration of the initial 2 years establishment and maintenance periods.

3.0 REHABILITATION STRATEGY

This section outlines the Rehabilitation Strategy for the covenant area. The Rehabilitation Strategy is in accordance with SC6.8 City Plan policy – Environmental management plans and SC6.12 City Plan policy Land development guidelines (Section 5.4.3.20 Rehabilitation). The primary objectives for the rehabilitation area include:

- Protect eucalypt forest which includes regrowth regional ecosystems, hollow bearing trees, threatened flora species, glossy black cockatoo and koala habitat;
- Retain and enhance existing native koala habitat to retain dispersal across the eastern portions of the site and as habitat refuge in its own right;
- Increase the extent of native vegetation cover over time (i.e. across weeded and/or sparsely covered areas) to enable re-establishment of preclearing regional ecosystems and koala foraging resources;
- Increase flora diversity within the designated areas;
- Provided targeted foraging habitat for native fauna species (i.e. fruiting species for flying foxes, eucalypts for koalas, she oaks for glossy black cockatoos)

There are four commonly recognised ecological restoration approaches as identified within the SEQERF and following a review of the vegetation and condition of habitat contained within rehabilitation zones it is considered that the overarching rehabilitation approach should be a combination of 'assisted natural regeneration' and 'reconstruction' (GCCC, 2007/2016/2023; TSC, 2009; Greening Australia, 1999; SEQERF, 2012). The applicable circumstances of these types of rehabilitation are provided below:

RECONSTRUCTION	
Applies:	Where the site is highly degraded or altered. When the degree of disturbance has been so great and long-standing that the pre- existing native plant community cannot recover by natural means. To sites such as areas of fill, sites affected by stormwater flow, areas that have been drastically cleared, even though there may be a few remaining native trees or shrubs. When a greater degree of human intervention is required, such as weed control, cessation of grazing and/or slashing, amelioration of soil conditions such as importation of soils, drainage works or re-shaping of the landscape
Role of planting:	Importation of native species to the area is required, either through planting or direct seeding (in some situations). natural regeneration and recruitment is insufficient to initially re-establish the original vegetation. Depending on the prevailing circumstances, the planting of a broad diversity of species from the target ecosystem may be unnecessary and the use of pioneers may be sufficient to re-establish ecological processes.
Goal vegetation community:	The re-establishing planted community should be similar to the original vegetation in structure, composition and diversity.

ASSISTED NATURAL REGENERATION	
Applies:	To natural areas where the native plant community is largely healthy and functioning. When native plant seed is still stored in the soil or will be able to reach the site from nearby natural areas, by birds or other animals, wind or water. Where the natural regeneration processes (seedling germination, root suckering, etc.) are being inhibited by external factors, such as weed invasion, soil compaction, cattle grazing, mechanical slashing, etc. When limited human intervention, such as weed control, minor amelioration of soil conditions, erection of fencing, cessation of slashing, etc. will be enough to trigger the recovery processes through natural regeneration. When the main management issue is weed infestation and/or current land use practices.
Role of planting:	Planting in such areas can work against the aims of restoration by interfering with natural regeneration except where species cannot return to site without direct intervention
Goal vegetation community:	The re-establishing plant community will be substantially similar in structure, composition and diversity to the original vegetation.

3.1 REHABILITATION ZONES

Three distinct ecological rehabilitation zones will be provided in association with the subdivision as follows and generally depicted on Figure 2:

RZ1-RECONSTRUCTION – 0.8HA

The management of this habitat retention area shall focus upon eradication of existing weeds with upfront revegetation of eucalypt open forest (RE12.11.24) associated flora due to existing disturbances (i.e. weed dominance, previous land use resulting in absence of shading canopy). Targeted koala and glossy black cockatoo foraging resources shall be included.

RZ2-ASSISTED NATURAL REGENERATION WITH TARGETED TREE PLANTING – 3.02HA

This Category X community was almost entirely cleared as part of the historical grazing use of the property and has since re-established as a generally low-mid high community of pioneer/early successional woody species including Wattles, Sheoak and Tea-tree. Most areas include a shading, low canopy although recruitment of eucalypts, corymbians and lophostemons is reduced. Several areas which require early weed treatment (due to higher levels of infestation) have been identified (refer Figure 3) with other areas to be subject to general ongoing weed management and protection of natural regeneration. Initial pocket tree planting dispersed across the RZ is proposed to introduce additional canopy tree species diversity whilst providing koala habitat trees and glossy black cockatoo foraging resources.

RZ3-ASSISTED NATURAL REGENERATION – 1.79HA

This area contains the Category B (remnant) and Category C (regrowth) components of the retained eucalypt open forest which exhibits shaded canopy cover with a relatively healthy lower strata (shrub, ground cover, leaf litter) across most areas. Several areas which require early weed treatment (due to higher levels of infestation) have been identified (refer Figure 3). Otherwise, ongoing general weed management and protection of natural regeneration is the focus of this RZ.

Prior to rehabilitation works commencing, the rehabilitation zones should be secured from degrading impacts such as grazing by stock, unauthorised access and rubbish dumping. Some factors may require immediate attention due to the potential for adverse effects. These situations may include:

- Uncontrolled stock access
- The presence of highly invasive weed species which may disperse further prior to substantial rehabilitation works commencing.
- Flammable vegetative or dumped construction materials accumulating in areas which could spread into retained bushland (including weed thickets, overgrown grasses).
- Damaging and easy access by 4WD, motorbikes and pedestrians into rehabilitation zones. This may require installation of temporary fencing if deemed appropriate.

The carrying out of effective and comprehensive restoration works in a natural area requires that the site be revisited regularly, preferably over a period of at least two years, to achieve the best possible ecological outcomes. Ongoing works may be broken down into the following categories:

Primary Works (prior to Establishment period)

Primary works or initial works within the site or a section of the site involves a sequence of activities such as the control of all groundcover weeds, woody weeds in the understorey and exotic vines prior to the control of weed trees. Primary work has the effect of creating a large degree of disturbance which will stimulate the germination of native and exotic species. Therefore, continuing works should be scheduled shortly after the initial visit to allow for timely control of the newly regenerating weeds. Highly invasive weeds should be treated as a priority during primary work in order to avoid invasion of newly disturbed areas. Some weeds will need to be treated in steps e.g. where areas of weed is being used by nesting birds or where the staged removal of canopy weed trees is required. Techniques used during primary work commonly involve spot spray, cut-scrape-paint, cut-paint, scrape-paint, roll-hang and over spraying (SEQERF, 2012: 84). Weed control methods and herbicide control techniques are discussed further below in Section 4.

Zones which are to be revegetated ('reconstruction') are also planted out and mulched after initial weed control or completion of earthworks (refer revegetation methods section below).

Follow-up Works (Establishment period 12 months)

At intervals, which will vary according to the type of weed impacting the site and growing conditions, follow-up work will be necessary. This generally involves the spot-spraying of newly germinating weeds and resprouting sections of woody weeds and vines. It is at this stage that observational visits should be made to the site to determine what progress the vegetation is making, and decide when to implement further follow-up work. A site that receives badly-timed, too frequent or too little follow-up will rapidly experience setbacks, as weed propagules will quickly become established in the newly disturbed areas. Germinating native seedlings may be swamped by weeds or damaged by inexperienced operators thereby exhausting the seedbank. Unless adequate follow-up can be ensured when planning restoration works, there is little point in commencing primary work, as time and resources are consumed with no substantial gain achieved (SEQERF, 2012: 84).

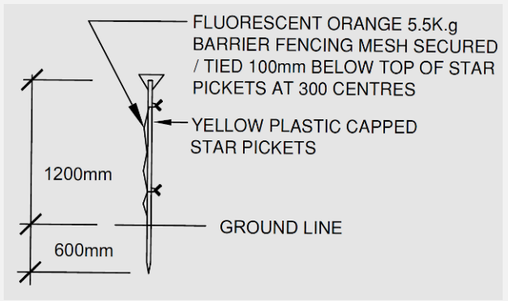
Revegetated areas are regularly inspected, watered and monitored for growth with any dead stock replaced during the establishment period)

Maintenance Works (On-maintenance period 12 months)

By the maintenance stage, the vegetation community is at a point where native plant species are germinating and establishing, and canopy formation is occurring. Weed density is starting to decrease as the native plants which have been encouraged during the previous restoration works are able to out-compete the weeds. One of the fundamental principles of ecological restoration is that it attempts to create or re-establish an ecosystem that is self-sustaining. Therefore, it is the underlying goal that maintenance will eventually be decreased to a minimum. While this is not always possible, due to factors such as the continual reintroduction of weed propagules to the site from nearby residential areas; unfavourable seasons or weather event; persistent weed species; or global influences such as the enhanced greenhouse effect, it should always be strived for (source: SEQERF). Maintenance works over time are intended to be limited to minor ongoing weed management and infill planting in areas of failure.

REVEGETATION/REHABILITATION ZONE PROTECTION FENCING EXAMPLE





3.2 GENERAL METHODS FOR WEED CONTROL

The methods and herbicide use rates provided below are current best practice methods and sourced from the SEQ Restoration Framework Manual, the Subtropical Rainforest Restoration Manual and/or the NSW Weed Control Handbook. It is the responsibility of the operator to ensure methods used are current best practice and are suitable for the site and any environmental constraints experienced at the site. The rates outlined below are general rates with specifications for site identified individual species contained in the following table.

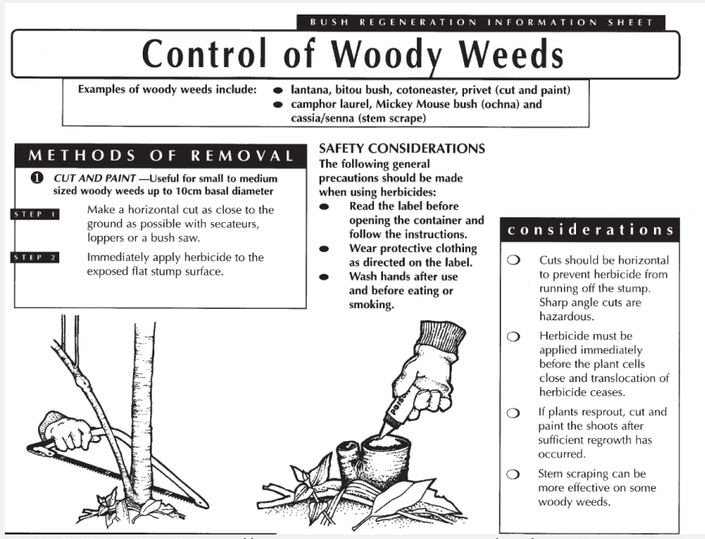
Weed species identified are those which were identified within 20-30 metres of the proposed rehabilitation area during flora surveys of the site. Although some species are not currently within the RA, control techniques and methodologies are provided for potential establishment during the establishment and on-maintenance periods

Cut-scrape-paint

This weed control method applies to all woody shrubs, trees and some vines.

- Cut plant low to the ground at an angle.
- Apply Glyphosate immediately at the rate of 1-part Glyphosate to 1.5 parts water, with a paintbrush approximately 1.5 centimetres wide.
- Scrape sides lightly to reveal green tissue and apply the herbicide to the scraped area.
- Take care that the brush is not contaminated with soil.

Note - all seed that has high viability and longevity, e.g. *Senna spp*. and other members of the Fabaceae family, or plants with a high invasive potential, such as Umbrella Tree *Schefflera actinophylla*, must be removed from the parent and either composted on site or removed from the site.


BUSH REGENERATION INFORMATION SHEET

Control of Woody Weeds

Examples of woody weeds include: lantana, bitou bush, cotoneaster, privet (cut and paint) camphor laurel, Mickey Mouse bush (ochna) and cassia/senna (stem scrape)

METHODS OF REMOVAL

1 *CUT AND PAINT* —Useful for small to medium sized woody weeds up to 10cm basal diameter

STEP 1 Make a horizontal cut as close to the ground as possible with secateurs, loppers or a bush saw.

STEP 2 Immediately apply herbicide to the exposed flat stump surface.

SAFETY CONSIDERATIONS

The following general precautions should be made when using herbicides:

- Read the label before opening the container and follow the instructions.
- Wear protective clothing as directed on the label.
- Wash hands after use and before eating or smoking.

considerations

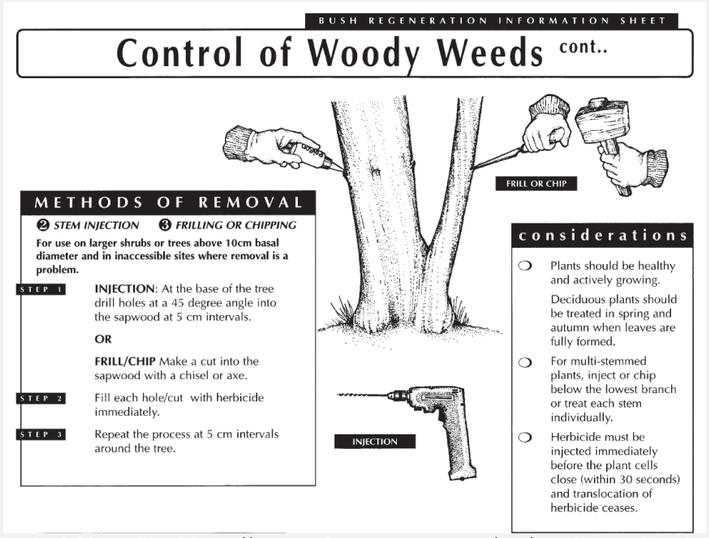
- Cuts should be horizontal to prevent herbicide from running off the stump. Sharp angle cuts are hazardous.
- Herbicide must be applied immediately before the plant cells close and translocation of herbicide ceases.
- If plants resprout, cut and paint the shoots after sufficient regrowth has occurred.
- Stem scraping can be more effective on some woody weeds.

(SOURCE: NPWS, 2011 online @ https://www.environment.nsw.gov.au/cpp/WeedRemovalFactsheets.htm)

Stem Injection

This weed control method applies to all woody trees and shrubs with a diameter of about six to ten centimetres or greater.

- Drill a hole at an angle into the sap wood using an 8-10mm drill bit angle, Holes to be no >than 10cm apart.
- Apply herbicide (approx 4ml) immediately into the hole using a tree-injecting device (if using Glyphosate, apply undiluted or at the rate of 1 part Glyphosate to 1.5 parts water). Repeat this procedure at intervals around the circumference of the tree, as close to the ground as possible. Where the presence of a crotch angle makes this difficult, drill a hole above it. Note – one row of drill holes will be sufficient for trees with trunks of six to ten centimetres; larger trunk diameters will need correspondingly more.
- Treat all visible lateral roots as per dot point 1.

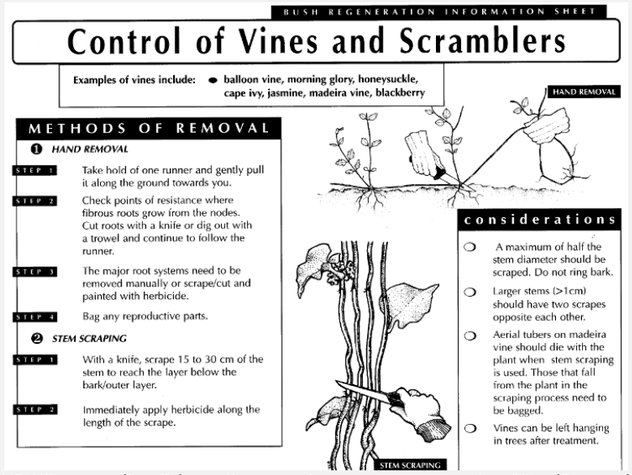


(SOURCE: NPWS, 2011 online @ https://www.environment.nsw.gov.au/cpp/WeedRemovalFactsheets.htm)

Scrape-paint

This weed control method is applicable to many species of vines where it is desirable to treat the vines intact, particularly those with aerial tubers such as Madeira Vine *Anredera cordifolia* or those which will propagate from segments, e.g. Cape Ivy *Delairia odorata*.

- Scrape the stem tissue on one side of the stem only for at least 20-30 centimetres if possible. Note on Madeira vine it is necessary to scrape heavily. Scrape as many sections of the stem as possible.
- Apply undiluted Glyphosate with a paintbrush.
- On stems that are thicker or horizontal, make a ditch into the stem with a knife and apply herbicide. Tubers and side roots should be treated the same way. Note - care must be taken not to sever the stem.



(SOURCE: NPWS, 2011 online @ https://www.environment.nsw.gov.au/cpp/WeedRemovalFactsheets.htm)

Spot Spraying

This weed control method is carried out using a 10-15 litre backpack spray unit with a modified spray nozzle that gives a solid spray pattern. Glyphosate is the main herbicide used with the addition of a marker dye. For plants that show some resistance (e.g. Madeira Vine) or where growing conditions are not optimal, an acidifying agent, LI700®, is added. Metsulfuron methyl can also be used for resistant species and grasses. It should be used with a surfactant, such as Agral.

- Where both Glyphosate and Metsulfuron methyl it is important to mix the chemicals as recommended e.g. MM must be well mixed with water prior to adding to backpack.
- Dilution rates for Glyphosate and Metsulfuron methyl are in accordance with the manufacturer's recommendations and any variation requires a permit from the National Registration Authority.
- Dilution rates for Glyphosate to water for treatment of some weed species are provided below:
- Plants with more or less succulent leaves, e.g. Wandering Jew Tradescantia fluminensis, Madeira Vine Anredera cordifolia (autumn to winter is the suggested time for spraying these plants), Spider/Ribbon Plants Chlorophytum spp. etc - 1 part Glyphosate to 50 parts water plus 1.5g Metsulfuron methyl to 10 litres water + 2 ml Agral® or 20ml Pulse® to 10 litres water.
- Lantana Lantana camara - 1 part Glyphosate to 100 parts water
- Other soft-leaved plants, annuals and grasses - 1 part Glyphosate to 100 parts water
- Bitou Bush Chrysanthemoides monilifera subsp. rotundata - 1 part Glyphosate to 150 parts water to 1 part Glyphosate to 400 parts water
- Typical dilution rates for Metsulfuron methyl to water are - 1.5g Metsulfuron methyl to 10 litres water + 2 ml Agral® or 20ml Pulse® to 10 litres water.





SPOT-SPRAYING IMAGE SOURCE: CHENOWETH EPLA AND BUSHLAND RESTORATION SERVICES, 2012

Overspray

This weed control method is applicable to large, dense infestations of such plants as Lantana camara, where it is desirable to leave the dead plants intact to prevent erosion and over-exposure of large areas, protect native seedlings from predators such as wallabies, and avoid trampling by humans.

- Spray over the top of the infestation, using a weak solution of Glyphosate.
- Any native plants that may be under the weed will be protected by the foliage cover of the weed.
- Leave the sprayed plants intact so that native seedlings can establish under the shelter provided.
- The rate for overspraying of Lantana is 1 part Glyphosate to 100 parts water.
- Alternatively, weeds can be cut and flattened with bush-hooks or loppers and the subsequent regrowth sprayed with Glyphosate. In many cases it is preferable to overspray wherever practicable as this will cause less erosion (via increased runoff across exposed soils) and trampling of suppressed native plants, such as ferns and seedlings. However, handwork will be necessary to cut-scrape-paint any unsprayed Bitou Bush or Lantana that surrounds native plants.



OVERSPRAYING IMAGE SOURCE: CHENOWETH EPLA AND BUSHLAND RESTORATION SERVICES, 2012

Gouge-paint

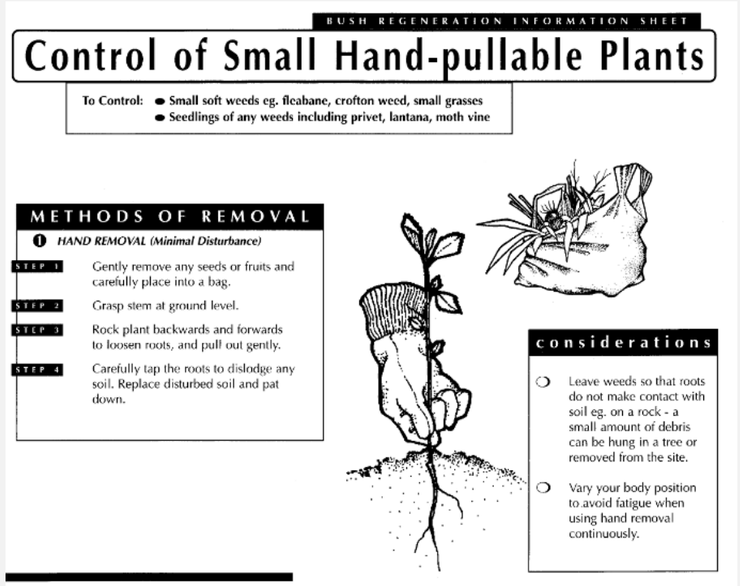
This weed control method applies to those plant species that have a fleshy root system, such as rhizomes or large bulbs. It is particularly appropriate for the treatment of *Asparagus spp*.

- Gouge out sections of the fleshy base with a knife (if using on Asparagus, first cut the stems at shoulder height and also at the base).
- Apply 1 part Glyphosate to 1.5 parts water immediately, with a paint brush approximately 1.5 centimetres wide.

Crowning and Hand Removal

This weed control method is applicable to weeds which have their growing points below the surface of the ground (corms, bulbs, rhizomes, clumped or fibrous root systems, etc. e.g. *Asparagus* spp., and introduced grasses).

- Grasp the leaves or stems and hold them tightly so that the base of the plant is visible. Plants with sharp leaves or stems should be cut back first.
- Insert the knife close to the base of the plant at a slight angle, with the tip well under the root system.
- Cut through the roots close to the base. Depending on the size of the plant, two or more cuts may be needed to sever all the roots.
- Remove the plant. Make sure that the base of the plant where the roots begin is completely removed.



(SOURCE: NPWS, 2011 online @ https://www.environment.nsw.gov.au/cpp/WeedRemovalFactsheets.htm)

RECORDED WEED SPECIES TREATMENT METHODS			
FAMILY	**SCIENTIFIC NAME**	**COMMON NAME**	**RECOMMENDED TREATMENT**
Asteraceae	Ageratina adenophora	crofton weed	Isolated individuals spot spray or hand removal. Plants: spot spray (G 100 mL/10 L + S or O).
Asteraceae	Ageratina riparia	mistflower	Isolated individuals spot spray or hand removal. Plants: spot spray (G 100 mL/10 L + S or O).
Asteraceae	Ageratum houstonianum	blue billygoat weed	Isolated individuals spot spray or hand removal. Plants: spot spray (G 100 mL/10 L + S or O).
Poaceae	Bambusa spp.	bamboo	Cut stump Cut stems back to 20 cm high and immediately pour herbicide down the hollow stem and wet the cut. Spot spray (G 100 mL/10 L + S or O). Remove tops of bamboo shoots and spot spray actively growing foliage and/or regrowth 1–2 m high.
Basellaceae	Anredera cordifolia	Madeira vine	Vines: hand-pull or CS&P (G 1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O, or G 200 mL/10 L + MM 1.5 g/10 L + W or O).
Arecaceae	Archontophoenix alexandrae	alexandra palm	Seedlings: Hand pull or spot spray (G 200 mL/10 L + S or O) Saplings: CS&P (G 1:1.5). Trees: F/I (G 1:1.5)
Myrsinaceae	Ardisia crenata	coral berry	Plants: spot spray (G 100 mL/10 L + S or O).
Asparagaceae	Asparagus aethiopicus 'Sprengeri'	basket asparagus fern	Initial treatment via hand removal using crowning technique and hanging off ground to dry. For successful weed control it is vital to cut out the entire central growing point. Plants: spot spray (G 100 mL/10 L + MM1.5g/10L + W or O)

RECORDED WEED SPECIES TREATMENT METHODS			
FAMILY	**SCIENTIFIC NAME**	**COMMON NAME**	**RECOMMENDED TREATMENT**
Caesalpiniaceae	Bauhinia galpinii	butterfly bush	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 200 mL/10 L + S or O).
Asteraceae	Bidens pilosa	cobblers pegs	Isolated individuals spot spray or hand removal. Plants: spot spray (G 100 mL/10 L + S or O).
Caesalpiniaceae	Calliandra haematocephala	crimson pom pom bush	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 200 mL/10 L + S or O).
Ulmaceae	Celtis sinensis	Chinese elm	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Solanaceae	Cestrum parqui	green cestrum	Plants: spot spray (G 100 mL/10 L + S or O).
Lauraceae	Cinnamomum camphora	camphor laurel	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Commelinaceae	Commelina benghalensis	hairy commelina	Plants: spot spray (G 100 mL/10 L + S or O).
Fabaceae	Crotalaria lanceolata	lance-leaved rattlepod	Plants: spot spray (G 100 mL/10 L + S or O)
Lythraceae	Cuphea carthagenensis	columbian waxweed	Plants: spot spray (G 100 mL/10 L + S or O)
Fabaceae	Desmodium uncinatum	silverleaf desmodium	Vines: hand-pull or CS&P (G 1:1.5) Spot spray: (G 100 mL/10 L + S or O)
Bignoniaceae	Dolichandra unguis-cati	cat's claw creeper	Vines: hand-pull or CS&P (G 1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O, or G 200 mL/10 L + MM 1.5 g/10 L + W or O).
Verbenaceae	Duranta erecta	duranta	Hand pull seedlings or spot spray (G 200 mL/10 L + S or O). Shrubs: CS&P G:1.5
Rosaceae	Eriobotrya japonica	loquat	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 200 mL/10 L + S or O).
Myrtaceae	Eugenia uniflora	Brazilian cherry tree	Hand pull seedlings or spot spray (G 200 mL/10 L + S or O). Shrubs: CS&P G:1.5
Poaceae	Axonopus spp., Chloris gayana, Cynodon dactylon, Digitaria didactyla, Eleusine indica, Megathyrsus maximus, Melinis spp, Paspalum spp, Pennisetum clandestinum, Poa annua, Setaria sphacelata, Sporobolus spp.	Various	Spot spraying or overspray of clumps and scattered individuals. Plants: hand-pull or spot spray (G 100 mL/10 L).
Oleaceae	Fraxinus griffithii	Himalayan ash	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 200 mL/10 L + S or O).
Apocynaceae	Gomphocarpus physocarpus	balloon cottonbush	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 100 mL/10 L + S or O).
Bignoniaceae	Jacaranda mimosifolia	jacaranda	Hand pull seedlings or spot spray (G200mL/10L + S or O). Shrubs: CS&P (G1:1.5) Saplings and trees: cut close to ground or ringbark or F/I (G1:1.5) ensuring bark is penetrated
Sapindaceae	Koelreuteria elegans subsp. formosana	golden rain tree	Hand pull seedlings or spot spray (G200mL/10L + S or O). Shrubs: CS&P (G1:1.5) Saplings and trees: cut close to ground or ringbark or F/I (G1:1.5) ensuring bark is penetrated
Verbenaceae	Lantana camara	lantana	Isolated small individuals spot spray or hand removal. Lopper, then CS&P base 1:1.5 G or Overspray large infestations and spot spray regrowth (G200mL/10L G + S or O)
Oleaceae	Ligustrum lucidum	large-leaved privet	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Oleaceae	Ligustrum sinense	small-leaved privet	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Caprifoliaceae	Lonicera japonica	Japanese honeysuckle	Vines: hand-pull or CS&P (1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O, or G 200 mL/10 L + MM 1.5 g/10 L + W or O).
Fabaceae	Macroptilium atropurpureum	siratro	Vines: hand-pull or CS&P (1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O, or G 200 mL/10 L + MM 1.5 g/10 L + W or O).
Moraceae	Morus alba	white mulberry	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Rutaceae	Murraya paniculata 'Exotica'	mock olive	Hand pull seedlings or spot spray (G 200 mL/10 L + S or O). Shrubs: CS&P G:1.5

RECORDED WEED SPECIES TREATMENT METHODS			
FAMILY	**SCIENTIFIC NAME**	**COMMON NAME**	**RECOMMENDED TREATMENT**
Fabaceae	Neonotonia wightii	white glycine	Vines: hand-pull or CS&P (G1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 200 mL/10 L + S or O, or G 100 mL/10 L + MM 1.5 g/10 L + W or O).
Ochnaceae	Ochna serrulata	ochna	Hand pull seedlings or spot spray (G 200 mL/10 L + S or O). Shrubs: CS&P G:1.5
Passifloraceae	Passiflora edulis. P. suberosa, P. subpeltata	passionflowers	Vines: hand-pull or CS&P (G1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 200 mL/10 L + S or O, or G 100 mL/10 L + MM 1.5 g/10 L + W or O).
Pinaceae	Pinus elliottii	slash pine	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Myrtaceae	Psidium guajava	guava	Lopper, then CS&P base 1:1.5 G or Overspray large infestations and spot spray regrowth (G200mL/10L G + S or O)
Rosaceae	Rhaphiolepis indica	Indian hawthorn	Hand pull seedlings or spot spray (G 200 mL/10 L + S or O). Shrubs: CS&P G:1.5
Dracaenaceae	Sansevieria trifasciata	mother-in-law's tongue	Hand removal / dig out or spot spray (G100 mL/10 L + MM 1.5 g/10 L + W or O).
Araliaceae	Schefflera arboricola	dwarf umbrella tree	Hand pull seedlings or spot spray (G 100 mL/10 L + S or O). Saplings CS&P G:1.5 Trees: F/I G 1: 1.5.
Asteraceae	Senecio madagascariensis	fireweed	Plants: spot spray (G 100 mL/10 L + S or O).
Caesalpiniaceae	Senna pendula	Easter cassia	Lopper, then CS&P base 1:1.5 G or Overspray large infestations and spot spray regrowth (G200mL/10L G + S or O). Collect and bag seed pods.
Caesalpiniaceae	Senna septemtrionalis	arsenic bush	Lopper, then CS&P base 1:1.5 G or Overspray large infestations and spot spray regrowth (G200mL/10L G + S or O). Collect and bag seed pods.
Malvaceae	Sida cordifolia	flannel weed	Plants: spot spray (G 100 mL/10 L + S or O, or MM 1-2 g/10L + W or O)
Malvaceae	Sida rhombifolia	paddy's lucerne	Plants: spot spray (G 100 mL/10 L + S or O, or MM 1-2 g/10L + W or O)
Solanaceae	Solanum chrysotrichum	devil's fig	Isolated small individuals spot spray or hand removal [gloves needed] Stems: C&P (G 1:1.5). Regrowth: spot spray (G 200 mL/10 L + S or O). Seedlings: Handpull or spot spray (G 200 mL/10 L + S or O); Saplings: CS&P (G 1:1.5).
Solanaceae	Solanum mauritianum	wild tobacco	Isolated small individuals spot spray or hand removal [gloves needed] Shrubs: C&P (G 1:1.5). Regrowth/small plants: spot spray (G 150 mL/10 L + A). Large Shrubs/trees: F/I (G 1:1.5).
Solanaceae	Solanum seaforthianum	Brazilian nightshade	Vines: hand-pull or CS&P (G 1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O).
Asteraceae	Sphagneticola trilobata	singapore daisy	Plants: spot spray (G 200 mL/10 L + MM 1.5 mL/10 L + W or O).
Arecaceae	Syagrus romanzoffiana	Queen palm	Seedlings: Hand pull or spot spray (G 200 mL/10 L + S or O) Saplings: CS&P (G 1:1.5). Trees: F/I (G 1:1.5)
Bignoniaceae	Tabebuia chrysotricha	golden trumpet tree	Saplings CS&P G:1.5 Trees: F/I G 1: 1.5. Hand pull seedlings or spot spray (G 200 mL/10 L + S or O).
Bignoniaceae	Tecoma stans	Tecoma / yellow bells	Shrubs: CS&P (G1:1.5) Plants: hand-pull or spray (G 200 mL/10 L + S or O).
Acanthaceae	Thunbergia alata	black-eyed susan	Vines: hand-pull or CS&P (G 1:1.5). Materials above head height to be left insitu where it will die and fall to the ground as natural mulch. Spot spray: (G 100 mL/10 L + S or O).
Commelinaceae	Tradescantia fluminensis	trad	Plants: spot spray (G 100 mL/10 L + S or O).
Sparrmanniaceae	Triumfetta rhomboidea	chinese burr	Shrubs: CS&P (G1:1.5) Seedlings/regrowth: hand-pull or spray (G 200 mL/10 L + S or O).
Asteraceae	Xanthium occidentale	noogoora burr	Shrubs: CS&P (G1:1.5) Seedlings/regrowth: hand-pull or spray (G 200 mL/10 L + S or O).

* The weed species listed above are species which currently occur on the landholding which may become established in the future within the RA

Control Method Abbreviations:

CS&P	= cut, scrape and paint	C&P	= cut and paint
F/I	= frill/stem-inject/spear or drill	S&P	= scrape and paint
G	= glyphosate (Roundup Biactive) dilution ratio (i.e. Glyphosate to water)		
MM	= metsulfuron-methyl (i.e.Brush-off) dilution ratio	S	= surfactant (e.g. LI 700)
A or O	= spray adjuvant, (e.g. Agral, Codacide, Protec Plus)		
2, 4-D	= 2,4-D 625 glamine (Amicide 625) dilution ratio (i.e Kenso Agcare Ken-Amine 625 Selective Herbicide to water)		

* where herbicide treatment is required the use of Roundup Biactive is primarily recommended. The active ingredient of this herbicide is Glyphosate isopropylamine which has been found to be non-toxic to frog tadpoles and generally does not require the use of additional surfactants.

Recommended Application Technique For Spraying (Knapsack/Handgun Equipment)

The dilution rate is given as a ratio of herbicide volume to water volume. Adjust equipment to achieve an even spray pattern. Apply to ensure complete and uniform wetting of all foliage. For handgun equipment, a D6 spray tip (Spraying Systems Australia P/L) or equivalent, and an operating pressure of 400-700 kPa are recommended.

Additional General Recommendations

- Where areas are spot-sprayed and/or hand weeded, weed material must be left insitu to act as natural site mulch
- Weed control (especially groundcover weed control) must be undertaken in a manner which does not promote erosion, expose soils to excessive runoff or instability of soil, especially in waterways or high velocity flow zones.
- Herbicide dye must be used to reduce the potential for over spraying or re-spraying of previously treated areas. If evidence of excessive spraying exists or if off target damage is evident, rehabilitation will be required to the satisfaction of Council to ensure all areas of the rehabilitation area are stable and not at increased risk of erosion or expose runoff related impacts due to off target damage.
- Undesirable vine species must be treated by cutting the plant twice. Once at head height and then at ground level. Immediately after cutting at ground level herbicide must be applied using the cut, scrape and paint method.

Source Material:

Australian Government Australia Pesticides and VMA Permit to Allow Minor Use of an AGVET Chemical Product for the Control of Environmental Weeds in Non- Crop Areas Permit Number – PER11463 1-7-2009 to 30-6-2023 Biosecurity QLD.

Department of Agriculture and Fisheries / Biosecurity Queensland (2020) Weeds and Diseases online @ www.biosecurity.qld.gov.au

Department of Agriculture and Fisheries / Biosecurity Queensland (2024) Plant Disease, Insect Pests and Invasive Plants online @ https://www.business. qld.gov.au/industries/farms-fishing-forestry/agriculture/biosecurity

Mann, M. (2000) Toxicological Impact of Agricultural Surfactants on Australian Frogs (PHD Thesis). Curtin University of Technology, Perth Nufarm Australia Limited (undated) Roundup Biactive Herbicide by Monsanto NRA Approval No. 48518/1102

Big Scrub Rainforest Landcare Group (2005) Subtropical Rainforest Restoration: A Practical Manual and Data Source for Landcare Groups, Land Managers and Rainforest Regenerators. BSRLG, Bangalow.

Chenoweth EPLA and Bushland Restoration Services (2012) South East Queensland Ecological Restoration Framework: Manual. Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane

NSW DPI (2018) New South Wales Weed Control Handbook A guide to weed control in non-crop, aquatic and bushland situations. NSW DPI

NSW Weedwise (2024) online @ https://weeds.dpi.nsw.gov.au/

NSW OEH (2011) Weed Removal Fact Sheets for Bush Regenerators

4.0 REVEGETATION SPECIFICATIONS AND METHODS

Following primary weed management works, the nominated zones will require infill planting (reconstruction/revegetation) works to be performed. The revegetation work comprises:

- Purchase and supply all plants in accordance with relevant approvals
- Installation and mulching of all plants within revegetation area
- Ongoing maintenance and weed management of revegetation area to ensure survival

4.1 PLANT SUPPLY

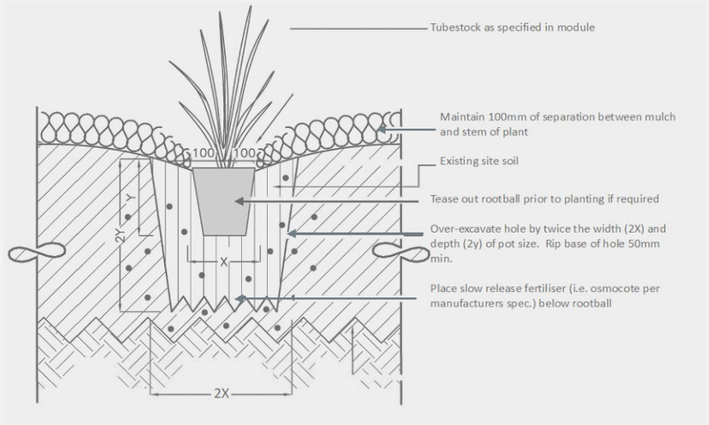
- Plants shall be vigorous, well established, of good form, not soft or forced, hardened off, free from disease and pests with large healthy root systems and not pot bound.
- The root system shall be well balanced in relation to the size of the plant.
- Trees shall have a single leading shoot.
- Plant containers shall be of an appropriate size and free from weeds.
- Plants shall not exhibit signs of being stressed at any stage during their development due to inadequate watering, excessive sunlight, physical damage or have restricted growth due to nursery rows.
- Planting species shall be selected by the approved modules with substitutions only permitted from pre-clearing regional ecosystem technical descriptions with Council consent

4.2 PLANT INSTALLATION/REVEGETATION

- Planting is to occur as soon as possible after delivery occurs. If this is not possible (i.e. due to weather conditions) plants are to be stored in a shady area and watering maintained.
- If planting is to be executed during council water restriction periods, ensure plants can be watered in at time of planting. Do not allow plants to be installed on a day they can't be watered.
- Planting to be executed in accordance with the planting detail below
- Don't plant into dry or muddy soil or in extreme weather conditions.
- Ensure plant root systems are moist when removed from container and not allowed to dry out and planting area has been thoroughly watered.
- Excavate soil at planting site at twice the width of the rootball and over excavate planting depth to allow placement of slow release fertiliser (Osmocote' sustained release fertiliser or equivalent) and water crystals
- Plant out with minimum disturbance to root ball ensuring finished compacted soil levels coincide with the natural soil level of the plant and plant stem is erect

- Thoroughly water entire planting area before applying forest mulch
- Apply and spread mulch evenly to a depth of 100mm to all plants and a minimum distance of 500mm around each plant but ensuring that the mulch is not in contact with the plant stem. Mulch to be 'forest mulch' free of weeds, termites and other foreign matter.
- Provide temporary protection fencing to rehabilitation area to remain in place during the 12-month establishment period

TUBESTOCK PLANTING SPECIFICATION



PHYTOPHTHORA PROTOCOL

Phytophthora is a microscopic soil borne organism which causes environmental damage in natural ecosystems including root rot of a wide variety of native plant species. Where there is a risk of Phytophthora, workers must follow hygiene related processes with equipment prior to entering the rehabilitation zone including:

- Cleaning off all dirt from boots on arrival and departure from site;
- Disinfect boots with mentholated spirits;
- Scrub boot with stiff brush and follow similar principle for tools
- Use of Mentholated spirits in spray bottle for secateurs, loppers, knifes, etc.
- Plants identified to be infected by Phytophthora should be treated with a fungicide containing potassium phosphonate in accordance with best practice guidelines

MYRTLE RUST PROTOCOL

Myrtle Rust (Uredo rangoli) is a fungus that is closely related to the Eucalyptus/Guava rusts. It infects leaves of susceptible plants producing spore-filled lesions on young actively growing leaves, shoots, flower buds and fruits. Leaves may become buckled or twisted and may die as a result of infection. In association with revegetation on site all nursery stock introduced to the property must come only from plant nurseries following the hygiene protocols as set out within the Nursery Industry Myrtle Rust Management Plan-2011 for the prevention of spread of this fungus.

FIRE ANT CONTROL REQUIREMENTS

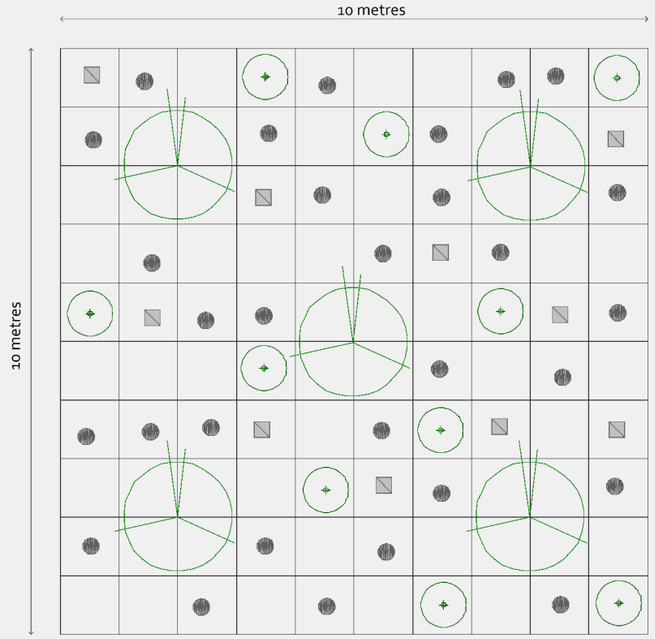
- All landscape materials including but not limited to soils, mulch, gravel, potted or ex-ground plants, pavers, timberetc. to be used in landscape treatments on this site are free of 'Fire Ants' and Fire Ant eggs;
- All landscape material being sourced from areas currently identified as potential Fire Ant risk areas must be checked by a suitably qualified professional and certified that:
  - no risk of transportation of Fire Ants exists; and
  - that all materials are free from Fire Ant contamination.

4.3 REHABILITATION AREA ONGOING MAINTENANCE

The following maintenance actions are necessary to achieve the restoration aim and objectives:

- Maintenance of rehabilitation zones will be undertaken for a period of 24 months (12 months establishment and 12 months maintenance).
- Plantings are to be regularly watered as necessary for a period of twelve (12) weeks following installation.
- Ongoing watering fertilising, watering and treatment of pests and diseases as necessary to maintain health and growth
- Rubbish removal as necessary to maintain the area in a neat and tidy condition
- Weed control is to occur monthly during winter and autumn and fortnightly during spring and summer (refer Section 3 for weed control techniques)
- Mulch is to be replenished as necessary to maintain a depth of 100mm around plantings during the establishment and maintenance period
- Plantings exhibiting signs of grazing (i.e. rabbits or wallabies) are to be protected with tree guards or additional exclusion fencing.
- Replacement of planted stock lost to death shall occur as required to achieve a 100% survival rate at 24 months after planting.

RZ1 – OPEN EUCALYPT FOREST RE12.11.24 PLANTING MODULE



10M X 10M

DENSITIES CAN INCLUDE SELF REGENERATING PLANTS AND LEAF LITTER AND FALLEN ORGANIC DEBRIS TYPICAL TO APPLICABLE REGIONAL ECOSYSTEM.

PLANTING SCHEDULE SPECIES SELECTED FROM REDD, REGIONAL ECOSYSTEM TECHNICAL DESCRIPTIONS (Ryan et al, 2.21), AND APPLICABLE REGIONAL ECOSYSTEM BENCHMARK DATA (DES, 2021). CANOPY TREES MUST HOWEVER BE DOMINATED BY THOSE SPECIFICALLY LISTED WITHIN THE APPLIED MODULE (I.E. RE 12.11.24).

GROUNDCOVER & VINE SPECIES
Refer to densities, species and pot sizes below

SHRUB SPECIES
Refer to densities, species and pot sizes below

SMALL TREE/PIONEER SPECIES
Refer to densities, species and pot sizes below

CANOPY TREE SPECIES
Refer to densities, species and pot sizes below

REVEGETATION MODULE:OPEN EUCALYPT FOREST (RE12.11.24)

RZ1 – OPEN EUCALYPT FOREST RE12.11.24 PLANTING MODULE – 0.8ha				
SPECIES NAME	**COMMON NAME**	**POT SIZE**	**% OF 100m² MODULE**	**APPROX. QTY**
CANOPY TREES				
Eucalyptus siderophloia	**Grey Ironbark**	75MM TUBE	5%	400
Corymbia intermedia	**Pink Bloodwood**			
Eucalyptus microcorys*	**Tallowwood**			
Eucalyptus propinqua*	**Grey Gum**			
Eucalyptus tindaliae	**White Stringybark**			
SUB-CANOPY & PIONEER TREES				
Acacia disparrima	Hickory Wattle	75MM TUBE	10%	800
Acacia melanoxylon	Blackwood			
Allocasuarina littoralis	*Black She-oak*			(min 69 L.confertus)
Allocasuarina torulosa	*Forest Oak*			
Alphitonia excelsa	Soap Tree			
Daviesia arborea	Golden Tree Pea			
Lophostemon confertus	**Brushbox**			
SHRUBS				
Acrotriche aggregata	Red Ground Berry	75MM TUBE	10%	800
Breynia oblongifolia	Coffee Bush			
Dodonaea triquetra	Hop Bush			
Leptospermum polygalifolium	Wild May			
Pittosporum revolutum	Yellow Pittosporum			
Pultenaea villosa	Hairy Bush Pea			
GROUNDCOVERS				
Dianella caerulea	Blue Flax Lily	75MM TUBE	30%	2400
Cymbopogon refractus	Barbed wire grass			
Lepidosperma laterale	Variable Sword Sedge			
Lomandra longifolia	Long-leaved Matrush			
Themeda triandra	Kangaroo Grass			

***** denotes koala foraging tree of higher utility class [minimum 2 per module]
denotes koala habitat tree [minimum 6 per module]
denotes glossy black cockatoo foraging tree [minimum 2 per module]

RZ2 – ASSISTED NATURAL REGENERATION WITH TARGETED TREE PLANTING

RZ2 – DISPERSED TREE PLANTING AMONGST EXISTING REGROWTH – 3.02ha [assumes on average 60% is currently occupied by T1/T2 species-refer Ecological Assessment)				
SPECIES NAME	**COMMON NAME**	**POT SIZE**	**AVERAGE PER 100m²**	**APPROX. QTY**
CANOPY TREES				
Eucalyptus siderophloia	Grey Ironbark	75MM TUBE	6	709
Corymbia intermedia	Pink Bloodwood			
Eucalyptus microcorys*	Tallowwood			
Eucalyptus propinqua*	Grey Gum			
Eucalyptus tindaliae	White Stringybark			
SUB-CANOPY & PIONEER TREES				
Allocasuarina littoralis	*Black She-oak*	75MM TUBE	1	302
Allocasuarina torulosa	*Forest Oak*			

4.4 REHABILITATION AREA PERFORMANCE CRITERIA

The following key performance indicators are to be achieved within the rehabilitation zones:

- Existing native vegetation to be retained where applicable
- Planting densities is achieved in accordance with the planting density nominated for each rehabilitation zone
- Mulch maintained to 100mm throughout the 12-month establishment and 12-month maintenance periods;
- All woody weeds, all vines and all prohibited invasive plants (Biosecurity Act 2014) are to have initial treatment prior to 'Establishment' inspection.
- After the 12 month establishment period the following is to be achieved:
  - No prohibited or restricted invasive plants (Biosecurity Act 2014) are to be present untreated
  - Other weed coverage is to be less than 10% of the area.
- All weed treatment must be performed in a manner which does not promote erosion, uncontrolled runoff or instability of soil.
- >90% survival rate of planted stock is to be achieved over the 24-month establishment and maintenance period;
- After the 24 month establishment and maintenance period the following is to be achieved:
  - No prohibited or restricted invasive plants (Biosecurity Act 2014) are to be present untreated
  - Other weed coverage is to be less than 5% of the area.

<u>Additional key performance indicators assisted regeneration management areas:</u>

The nominated RZ2 and RZ3 shall be managed as 'assisted regeneration' areas whereby weed re- establishment will be routinely monitored (and control applied as necessary) and regeneration of native vegetation cover also monitored for a period of 18 months. At this stage a review should be performed determine the success of the natural regeneration areas. This shall be determined via the cover of the assisted regeneration zones with native species. In order for assisted natural regeneration to be considered successful the following is to be present over the majority of the areas within the relevant rehabilitation zones:

- Generally 1 plant per 2 square metres (or establishment of leaf litter/natural debris and/or foliage projection cover typical to surrounding areas of the pre-clearing regional ecosystem or per the DES issued Benchmark/Technical Description issued for the relevant RE)
- Assisted regeneration areas must exhibit species occurring within pre clearing regional ecosystems (i.e. RE 12.11.24).

During the rehabilitation review (6 months after 'establishment') to determine the success of the natural regeneration project, areas which are bare or denuded shall be addressed via reconstructive management (i.e. landscaping). This landscaping will be implemented and monitored accordingly for the remaining 6 months maintenance period. The landscaping modules to be planted within bare areas (if deemed necessary following the assisted rehabilitation review) shall be in accordance with relevant regional ecosystem module (i.e. RE 12.11.24 above).

4.5 REVEGETATION ZONE ADAPTIVE MANAGEMENT/CORRECTIVE ACTIONS

The following corrective actions are to be implemented in instances of non-compliance with the above key performance indicators:

- Rubbish or litter remaining within the rehabilitation zones is to be immediately removed.
- Where weed re-establishment occurs, appropriate control measures are to be implemented.
- Where planted specimens fail to strike or plantings do not achieve the required survivorship then supplementary plantings are to be installed to achieve the key performance indicators in this regard.
- If regular increases in height and crown cover extent are not recorded within the monitoring period a horticulturalist/arborist is to be employed to identify likely causes and to recommend measures (i.e. fertiliser application, increased watering etc.) to encourage increased growth. It is to be noted that plant growth rates may be limited by climatic, environmental, natural disaster or genetic reasons during the management period and exhibited growth rates are to be considered in the context of these external factors prior to implementing management measures in this regard.
- Where damage to vegetation protection fencing or signage is observed the structures are to be repaired to pre-existing condition.
- Any incidences of native tree, shrub or ground cover clearing beyond the approved extent is to be reported to Gold Coast City Council

N.B. In the event that adaptive management procedures are considered necessary throughout the course of the rehabilitation program, any amendment to the management regime described within this document must be undertaken in consultation with Council officers. Such procedures may include (but are not limited to) watering during drought, amendment of weed removal technique where unsuccessful for a given species, scarification of topsoil to reduce compaction, addition of fertiliser to poorly establishing areas etc. These measures will be considered in the context of plant species suitability on the site, with preference to those adapted and tolerant of the local environmental conditions.

4.6 REVEGETATION ZONE MONITORING

The success of a regeneration project can be assessed by systematic visual monitoring of the RA area. This need not be an overly time-consuming process, and the information generated can then be used to evaluate the success of various treatments. A permanent photo point can be set up so that a photograph may be taken of the site at regular intervals as it is being restored. A time series of photographs, from a degraded state prior to the commencement of restoration, through the transition stages, to the minimum maintenance stage, can illustrate the changes that have been achieved by restoration.

Collected site photos should be compiled in a 'master' monitoring report for proper record-keeping. Monitoring of the weed management and revegetation works allows for:

- Review of the baseline condition for measuring the success of the weed removal and control.
- Ensure level of protection for existing identified native vegetation inclusive of that which has naturally regenerated and/or been revegetated
- Review the rate of spread or contraction of weed infestation within the management zones
- Monitor the rate of assisted regeneration and revegetation of desirable native species promoted in areas where weeds have been removed.
- Identification of new weed threats or other factors which may be affecting the rehabilitation zones

It is recommended that at one photo points be established within each RZ and photographed on a quarterly basis for the monitoring period (18 months).

4.7 ADDITIONAL FAUNA HABITAT ENHANCEMENT

Logs and coarse woody debris salvaged from the development footprint to make refuge piles for small birds, ground dwelling mammals, reptiles and frogs.

As currently very few such trees are present, an additional five fauna boxes (cockatoo sized) are recommended to be installed within the environmental covenant area. The purchase and installation of the fauna boxes is to comply with the below requirements:

- Fauna boxes are only to be sourced from a reputable supplier or fauna consultant with experience in fauna box design and installation.
- Boxes are to be well-insulated, rainproof and facing away from prevailing winds and direct midday summer sunlight (placed on the south side of a tree where possible). 6mm drainage holes are to be drilled in the base of all boxes
- The boxes are to be attached to the tree in the below manner to protect the tree from ringbarking and to enable expansion of the attaching wire as the tree increases in girth:
  - Attaching wire is to utilize minimum 3mm plastic coated soft fencing wire.
  - A length of wire is to pass through the nest box and around the tree trunk.
  - At the sides of the nest box the wire is to be folded into at least four folds/loops about 60 mm tall and 15mm apart. As the tree grows the folds are slowly pulled apart and the nest box remains in the tree. Other methods that nail or screw the nest box to the tree typically fail within two to five years as the tree grows and either pushes the strapping/wire off the nail/screw or pulls the nest box apart as the trunk expands
  - Where the wire passes around the back of the tree trunk, the wire is threaded through a length of garden hose to protect the tree.
  - Where possible the wire around the tree should pass over a branch behind the trunk
- The boxes are to be placed above 10m in height to promote use by the target species



TREE CLIMBING IN PROGRESS TO AFFIX BOXES



EXAMPLE OF INSTALLED BOXES

5.0 REHABILITATION RESOURCES DOCUMENTS

Big Scrub Rainforest Landcare Group (2005) *Subtropical Rainforest Restoration: A Practical Manual and Data Source for Landcare Groups, Land Managers and Rainforest Regenerators*. BSRLG, Bangalow.

Chenoweth EPLA and Bushland Restoration Services (2012) *South East Queensland Ecological Restoration Framework: Manual.* Prepared on behalf of SEQ Catchments and South East Queensland Local Governments, Brisbane

Robertson, M. (1994) *Stop Bushland Weeds: A guide to successful weeding in South Australia's bushland*. The Nature Conservation Society of South Australia Inc.

TSC (2009) *Site Action Plan Guidelines To Guide Ecological Restoration Planning and Ongoing Management of Native Vegetation and Fauna Habitat* (Tweed-Byron Futures Protect, 2009).

BUSHLAND REGENERATION & WEED MANAGEMENT AND IDENTIFICATION WEBSITES

SEQ Ecological Restoration Framework
https://hlw.org.au/resources/seqecologicalrestorationframework/

Society for Ecological Restoration Australasia https://www.seraustralasia.org/

Australian Association of Bushland Regenerators https://www.aabr.org.au/

NSW WeedWise https://weeds.dpi.nsw.gov.au/

Tweed Shire Council Weeds https://www.tweed.nsw.gov.au/environment/pest-animals-weeds/weeds

Weed Id Department of Agriculture and Fisheries Weeds https://www.daf.qld.gov.au/business-priorities/biosecurity/invasive-plants-animals/plants-weeds

Weeds of National Significance https://weeds.org.au/weeds-profiles/

Gold Coast City Council Weeds https://www.goldcoast.qld.gov.au/Council-region/About-our-city/Environment-sustainability/Protecting-our- environment/Managing-pest-plants-animals/Pest-plants-weeds

FREE MOBILE PHONE APPLICATIONS

Weeds of Southeast Qld and Northern NSW

CSIRO WeedSCAN

NSW WeedWise

7.0 REGIONAL ECOSYSTEM TECHNICAL DESCRIPTIONS AND BIOCONDITION BENCHMARK INFORMATION

Technical Description — Regional ecosystem: **12.11.5a [Now 12.11.24]**

Eucalyptus tindaliae, E. carnea, Corymbia intermedia +/- E. siderophloia or E. crebra, Corymbia citriodora subsp. variegata woodland on metamorphics +/- interbedded volcanics



Pre-clearing area (ha), remnant area (ha) and per cent remaining: 28,446 13,355 47%

Species recorded: Total: 274; woody: 50; ground: 241; Avg. spp./site: 48.0; std dev.: 12.3, 23 site(s)

Basal area: Avg./site: 19.7 m²/ha, range: 9.0 - 35 m²/ha, std. deviation: 6 m²/ha, 23 site(s)

Structural formation: Woodland: 65%; open-forest: 30%; tall open-forest: 4%, 23 site(s)

Representative sites: 16506, 16514, 16517, 19735, 19745, 19753, 19754, 19755, 19756, 19766, 19768, 19769, 19829, 19838, 19870, 19876, 19879, 19883, 19888, 19889, 19890, 19903, 19904.

Stratum: **T1**

Height avg. = 22.5m, range 15-30m, 22 sites

Crown cover avg. = 43.5%, range 25.0-70.0%, 23 sites

Stem density/ha avg. = 244, range 80-800, 18 sites

Dominant species (relative cover, frequency): Eucalyptus tindaliae (42, 35%), Eucalyptus crebra (33, 26%), Eucalyptus carnea (25, 61%), Eucalyptus siderophloia (24, 70%), Corymbia intermedia (22, 78%)

Frequent species (cover, frequency): Corymbia intermedia (9, 78%), Eucalyptus siderophloia (10, 70%), Eucalyptus carnea (10, 61%), Eucalyptus propinqua (6, 35%), Eucalyptus tindaliae (21, 35%), Corymbia citriodora subsp. variegata (6, 26%), Eucalyptus crebra (13, 26%), Eucalyptus microcorys (8, 26%), Angophora leiocarpa (6, 22%), Lophostemon confertus (3, 22%), Eucalyptus tereticornis (9, 17%), Eucalyptus resinifera (8, 13%), Corymbia henryi (3, 9%), Eucalyptus seeana (4, 9%), Angophora woodsiana (4, 4%), Corymbia tessellaris (2, 4%), Eucalyptus acmenoides (4%), Eucalyptus helidonica (12, 4%)

Stratum: **T2**

Height avg. = 9.9m, range 6-20m, 21 sites

Crown cover avg. = 10.6%, range 1.0-40.0%, 22 sites

Stem density/ha avg. = 605, range 80-1680, 17 sites

Dominant species (relative cover, frequency): Lophostemon suaveolens (53, 22%), Lophostemon confertus (42, 57%), Allocasuarina torulosa (30, 48%), Eucalyptus carnea (23, 35%), Acacia disparrima subsp. disparrima (23, 39%)

Frequent species (cover, frequency): Lophostemon confertus (5, 57%), Allocasuarina torulosa (2, 48%), Acacia disparrima subsp. disparrima (4, 39%), Corymbia intermedia (1, 39%), Eucalyptus carnea (2, 35%), Eucalyptus crebra (1, 22%), Eucalyptus siderophloia (1, 22%), Lophostemon suaveolens (2, 22%), Eucalyptus propinqua (1, 17%), Eucalyptus tereticornis (1, 17%), Allocasuarina littoralis (5, 13%), Angophora leiocarpa (1, 13%), Eucalyptus tindaliae (13%), Acacia concurrens (8, 9%), Corymbia henryi (9%), Eucalyptus seeana (1, 9%), Acacia fimbriata (1, 4%), Angophora subvelutina (4%), Angophora woodsiana (4%), Corymbia citriodora subsp. variegata (1, 4%), Corymbia tessellaris (3, 4%), Eucalyptus helidonica (4, 4%), Eucalyptus resinifera (4%), Jagera pseudorhus (4%), Leptospermum polygalifolium (10, 4%), Melaleuca saligna (1, 4%)

Stratum: **T3**

Height avg. = 7.0m, 1 site

Crown cover avg. = 15.0%, 1 site

Frequent species (cover, frequency): Allocasuarina littoralis (12, 4%), Eucalyptus helidonica (3, 4%)

Stratum: **S1**

Height avg. = 2.3m, range 1.5-3m, 22 sites

Crown cover avg. = 8.6%, range 1.0-25.0%, 23 sites

Stem density/ha avg. = 1627, range 120-8400, 18 sites

Dominant species (relative cover, frequency): Lantana camara (42, 39%), Acacia concurrens (32, 35%), Acacia disparrima subsp. disparrima (29, 91%), Lophostemon confertus (20, 70%), Alphitonia excelsa (18, 35%)*

Frequent species (cover, frequency): Acacia disparrima subsp. disparrima (2, 91%), Lophostemon confertus (2, 70%), Lantana camara (4, 39%), Acacia concurrens (4, 35%), Alphitonia excelsa (1, 35%), Corymbia intermedia (30%), Acacia maidenii (1, 26%), Eucalyptus siderophloia (22%), Jacksonia scoparia (1, 22%), Eucalyptus carnea (17%), Lophostemon suaveolens (1, 17%), Eucalyptus crebra (13%), Acacia falcata (9%), Acacia fimbriata (2, 9%), Acacia leiocalyx (2, 9%), Allocasuarina littoralis (2, 9%), Allocasuarina torulosa (9%), Corymbia citriodora subsp. variegata (9%), Eucalyptus microcorys (1, 9%), Melaleuca salicina (1, 9%), Angophora woodsiana (2, 4%), Babingtonia similis (4%), Brachychiton populneus subsp. trilobus (4%), Corymbia tessellaris (4%), Dodonaea triquetra (6, 4%), Eucalyptus helidonica (2, 4%), Eucalyptus propinqua (4%), Eucalyptus seeana (4%), Eucalyptus tereticornis (4%), Eucalyptus tindaliae (4%), Euroschimus falcatus var. angustifolius (1, 4%), Hodgkinsonia ovatiflora (4%), Jagera pseudorhus (4%), Melaleuca nodosa (4%), Melaleuca viminalis (1, 4%), Ozothamnus diosmifolius (1, 4%), Polyscias elegans (4%), Psychotria loniceroides (4%), Pultenaea spinosa (4%), Solanum stelligerum (1, 4%), Trema tomentosa (4%), Triunfetta rhomboidea* (1, 4%), Trochocarpa laurina (4%)*

Stratum: **G**

Height avg. = 0.6m, range 0.3-0.7m, 21 sites

PFC avg. = 46.0%, range 5-75%, 23 sites

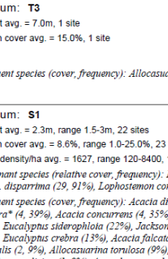
Dominant species (relative cover, frequency): Themeda triandra (30, 87%), Imperata cylindrica (21, 78%), Melinis minutiflora (14, 26%), Cymbopogon refractus (12, 83%), Eremochloa bimaculata (11, 39%)*

Frequent species (cover, frequency): GRAMINOIDS: Themeda triandra (14, 87%), Cymbopogon refractus (6, 83%), Entolasia stricta (4, 83%), Imperata cylindrica (12, 78%), Digitaria parviflora (2, 74%), Panicum effusum (57%), Capillipedium spicigerum (1, 43%), Lepidosperma laterale (2, 43%), Microlaena stipoides (2, 43%), Aristida calycina (1, 39%), Eremochloa bimaculata (5, 39%), Oplismenus aemulus (35%), Ottochloa gracillima (2, 30%), Alloteropsis semialata (1, 26%), Chrysopogon sylvaticus (1, 26%), Melinis minutiflora (7, 26%), Oplismenus imbecillis (22%), Scleria mackaviensis (22%), Eragrostis brownii (1, 17%), Paspalidium gracile (4, 17%), Bothriochloa decipiens (13%), Dichelachne micrantha (2, 13%), Eragrostis spartinoides (13%), Megathyrsus maximus* (1, 13%), Melinis repens* (13%), Paspalidium gausum (13%), Sporobolus creber (13%), Cyperus laevis (9%), Fimbristylis dichotoma (9%), Heteropogon contortus (9%), Urochloa decumbens* (9%)*
FORBS: Desmodium rhytidophyllum (1, 91%), Cyanthillium cinereum (83%), Eustrephus latifolius (70%), Lobelia purpurascens (70%), Glycine clandestina (65%), Lomandra laxa (1, 61%), Lomandra longifolia (2, 57%), Goodenia rotundifolia (52%), Cheilanthes sieberi subsp. sieberi (43%), Lomandra multiflora subsp. multiflora (43%), Alphitonia excelsa (39%), Brunoniella australis (39%), Cassytha pubescens (39%), Clematicissus opaca (39%), Passiflora suberosa (39%), Phyllanthus virgatus (39%), Dianella caerulea (35%), Geitonoplesium cymosum (35%), Lomandra confertifolia subsp. pallida (1, 35%), Plectranthus parviflorus (35%), Hardenbergia violacea (30%), Passiflora subpeltata* (30%), Stegnebeckia orientalis (30%), Bidens pilosa* (26%), Chrysocephalum apiculatum (26%), Dianella longifolia (26%), Galactia tenuiflora (26%), Leucopogon juniperinus (26%), Breynia oblongifolia (22%), Desmodium gunnii (22%), Eremophila debilis (22%), Gomphocarpus physocarpus* (22%), Hybanthus stellarioides (22%), Lantana camara* (22%), Lantana montevidensis* (2, 22%), Passiflora foetida* (22%), Pimelea linifolia (22%), Smilax australis (22%), Stephania japonica (22%), Acacia concurrens (17%), Acacia maidenii (17%), Centella asiatica (17%), Crassocephalum crepidioides* (17%), Crotalaria montana (17%), Emilia sonchifolia* (17%), Wikstroemia indica (17%), Acrotriche aggregata (1, 13%), Adiantum hispidulum (13%), Ageratum houstonianum* (13%), Ajuga australis (13%), Cayratia clematidea (13%), Conyza canadensis* (13%), Desmodium brachypodum (13%), Dioscorea transversa (13%), Doodia media (13%), Glochidion ferdinandi (13%), Hibbertia vestita (13%), Hypericum gramineum (13%), Iphigenia indica (13%), Murdannia graminea (13%), Opercularia diphylla (13%), Pandorea pandorana (13%), Passiflora edulis* (13%), Persoonia media (13%), Poranthera microphylla (13%), Pseuderanthemum variabile (13%), Psoralea eriantha (2, 13%), Pultenaea retusa (13%), Acacia falcata (9%), Acacia melanoxylon (9%), Ageratina riparia* (1, 9%), Baccharis halimifolia* (9%), Cirsium vulgare* (9%), Clerodendrum floribundum (9%), Corymbia torelliana (9%), Dianella revoluta (1, 9%), Flindersia australis (9%), Glochidion sumatranum (9%), Glossocardia bidens (9%), Glycine tabacina (9%), Grewia latifolia (9%), Hibbertia aspera (9%), Hypoxis pratensis (9%), Jacksonia scoparia (9%), Lagenophora stipitata (9%), Lilium formosanum* (9%), Macroptilonia axillare (12, 9%), Mallotus philippensis (9%), Myrsine variabilis (9%), Oxalis chnoodes (9%), Persoonia sericea (9%), Pittosporum revolutum (9%), Schefflera actinophylla (9%), Solanum nigrum (9%), Sonchus oleraceus* (9%), Triplasdenia cunninghamii (9%), Wahlenbergia communis (9%)*

BioCondition benchmark for regional ecosystem condition assessment

Southeast Queensland — **Regional ecosystem: 12.11.5a [now 12.11.24]**

Eucalyptus tindaliae, E. carnea, Corymbia intermedia +/- E. siderophloia or E. crebra, Corymbia citriodora subsp. variegata woodland on metamorphics +/- interbedded volcanics





BioCondition attribute			Benchmark
Recruitment of dominant canopy species (%):			100
Native plant species richness:		Tree:	10
		Shrub:	8
		Grass:	9
		Forbs and other:	17
Trees:	Tree canopy	Tree canopy median height (m):	26
		Tree canopy cover (%):	72
	Tree sub-canopy	Tree sub-canopy median height (m):	10
		Tree sub-canopy cover (%):	43
	Large trees	Large eucalypt tree dbh threshold (cm):	46
		Number of large eucalypt trees per hectare:	33
		Large non-eucalypt tree dbh threshold (cm):	na
		Number of large non-eucalypt trees per hectare:	na
	Typical tree species: Eucalyptus tindaliae (Queensland white stringybark), Eucalyptus carnea (broad-leaved white mahogany), Eucalyptus siderophloia (red ironbark), Corymbia intermedia (pink bloodwood), Eucalyptus crebra (narrow-leaved red ironbark)		
Shrubs:		Native shrub cover (%):	7
	Typical shrub species: Acacia concurrens (curracabah), Acacia disparrima subsp. disparrima (southern salwood), Lophostemon confertus (brush box), Alphitonia excelsa (soap tree)		
Ground cover (%):		Native perennial grass cover (%):	39
		Organic litter cover (%):	45
	Typical ground cover species: Themeda triandra (kangaroo grass), Imperata cylindrica (blady grass), Cymbopogon refractus (barbed-wire grass), Eremochloa bimaculata (poverty grass)		
Coarse woody debris: Total length (m) of debris ≥ 10cm diameter and ≥0.5m in length per hectare:			546
Non-native plant cover			0
	Typical non-native species: Lantana camara^, Melinis minutiflora (molasses grass)		

6.0 SCHEDULE OF REVEGETATION & ONGOING REHABILITATION MAINTENANCE WORKS (ASSUMES JANUARY COMMENCEMENT)

	Developer Responsibility	Developer Responsibility												Developer Responsibility											
	Prior to sealing of survey plan or as otherwise bonded.	Annual Timeline 12 month 'establishment period'												Annual Timeline 12 month 'on-maintenance period'										
TASKS/ACTIONS	Practical completion.	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Obtain approval of rehabilitation management plan	?																								
Delineate boundary of rehabilitation areas	?																								
Install temporary rehabilitation area protection fencing or signage as needed	?																								
Install fauna boxes into retained bushland area	?																								
Salvage and stockpile woody debris and hollow logs for distrubution into retained bushland area	?																								
Appoint bush regenerator or landscaping contractor	?																								
Commence weed management initially targeting priority areas (refer Section 3.2)																									
Order plant and equipment as necessary	?																								
Arrange and ensure availiability of water supply, fertiliser and water supply	?																								
Perform initial preparation, establishment and landscaping of RZ1 and RZ2 in accordance with RMP (Section 4.0-4.3)	?																								
Practical completion of revegetation inspection with Gold Coast City Council	?																								
Commence formal 12 month establishment period to include watering, weeding, fertilising, mulch top up as required to maintain health and growth of installed plants		?																							
Establish photo monitoring points within RA		?																							
Ongoing weed inspections and followup treatment where required (Section 3.2, 4.3)		?	?		?		?	?	?		?		?	?	?		?		?			?	?	?	?
Watering weekly for three months and as required thereafter		?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
Inspection of plant condition with fertiliser added as necessary to maintain growth				?			?			?			?						?						?
Inspection (and repair if necessary) of temporary exclusion/protection fencing				?			?			?			?												
Inspect and remove rubbish from RA (as required)		?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?
Replacement of shrubs/trees which have died or been severly damaged via natural causes (i.e. storms)													?												
Addition of forest mulch to 100mm depth if required													?												
Review of performance criteria (section 4.4) with corrective actions implemented if required (section 4.5)							?						?						?						?
Perform photo monitoring of RZs							?						?						?						?
Completion of 'establishment period' with Gold Coast City Council													?												
Remove temporary protection fencing or signage														?											
Review success of assisted regeneration areas for native vegetation cover and diversity (refer Section 4.4)																			?						
Landscape any failed assissted regeneration areas (i.e. bare or denuded) within Open Forest RE12.11.24 module in accordance with Section 4.2, water for three months and as required thereafter.																			?	?	?	?	?	?	?
Final review of performance criteria (section 4.4) with corrective actions implemented if required (section 4.5)																									
Completion of 'on-maintenance' period inspection with Gold Coast City Council																									

ULTIMATE PLANNING SOLUTIONS

Address: 4/113 Scarborough Street, Southport
Telephone: (07) 5649 8665
Email: admin@ultimateplanning.com.au

CLIENT: SALT DEVELOPMENT PROJECTS

ADDRESS: 98 GLENMORE DRIVE, BONOGIN

DRAWING TITLE: COVENANT & REHABILITATION MANAGEMENT PLAN

Author	Project No.	Scale	Date	Rev.
GD	UP26019	As shown	JUL 2026	B

8.0 EXAMPLE OF KOALA FRIENDLY FENCING (DES, 2022)



Figure 4.1.1 Post and rail fencing provides the most permeable fencing solution for koalas.



Figure 4.1.2. Fences incorporating trees and of slatted design provide ideal movement solutions for fence permeability to koalas.

Performance Outcome 1: *Allow koalas to easily climb through, over or under a fence to provide a permeable landscape.*

Design specifications: Best practice
1. Fencing raised off the ground with a minimum spacing of 300 millimetres from the ground to the fencing material, such as post and rail, provides the most permeable solution for koalas (Figure 4.1.1).
2. Incorporate existing trees into the fence to facilitate movement (Figure 4.1.2).
3. Use of push-under and push-through devices are preferred to traditional 'escape poles' constructed of treated timber poles, the effectiveness of which is not proven.
4. Fence tops must avoid barbed-wire or sharp ends (such as are used on some chain-mesh security fencing) which can entrap or snare koalas and other wildlife.

Alternative solutions Fence design must:
• ensure gaps in the fence are large enough to allow a koala to easily pass through
• gaps are of a size (less than 60 millimetres) to allow koalas to climb over but prevent koalas climbing through and getting stuck in the fence (Figure 4.1.2 and 4.1.3)
• use rails or slats that have spaces of at least 15 mm between vertical slats and 20 millimetres between horizontal rails that koalas can climb. Alternately, use materials such as timber posts or chain wire that a koala can easily grip and climb
• install a climbable timber post or log if fencing material is unclimbable. Post is a minimum 125 millimetres in diameter) leaning against the top of the fence but positioned at an angle to the fence so the log is not flush with the fence and climbable by a koala (i.e. the perpendicular space between the base of the log and the bottom of the fence is at least 400 millimetres (Figure 4.1.4).



Figure 4.1.3. Small-spaced fencing slats allow koalas to climb the fence while reducing entrapment between slats.



Figure 4.1.5. A timber post or log secured to an unclimbable fence allows entry to and exit from a property or habitat on either side of the fence.

• install a simple koala bridge (particularly suited to minimum security fences) to ensure safe movement over barbed wire using timber logs of at least 125 millimetres in diameter of the following design:

- timber logs are positioned adjacent to and within 1 metre of each other on either side of the fence and extend above the fence. A cross piece of similar diameter to the logs connects the two vertical timber posts that are within 1-4 metres of each other on either side of the fence (Figure 4.1.5).



RZ1: EXAMPLE AREAS REQUIRING IMMEDIATE WEED CONTROL WITH REVEGETATION



RZ1: EXAMPLE AREAS REQUIRING IMMEDIATE WEED CONTROL WITH REVEGETATION



RZ 2: EXAMPLE ASSISTED REGENERATION + KOALA TREE PLANTING

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RZ 2: EXAMPLE ASSISTED REGENERATION + KOALA TREE PLANTING



RZ3: EXAMPLE ASSISTED REGENERATION REQUIRING EARLY WEED CONTROL (PRIORITY AREAS)



RZ3: EXAMPLE ASSISTED REGENERATION REQUIRING EARLY WEED CONTROL (PRIORITY AREAS)

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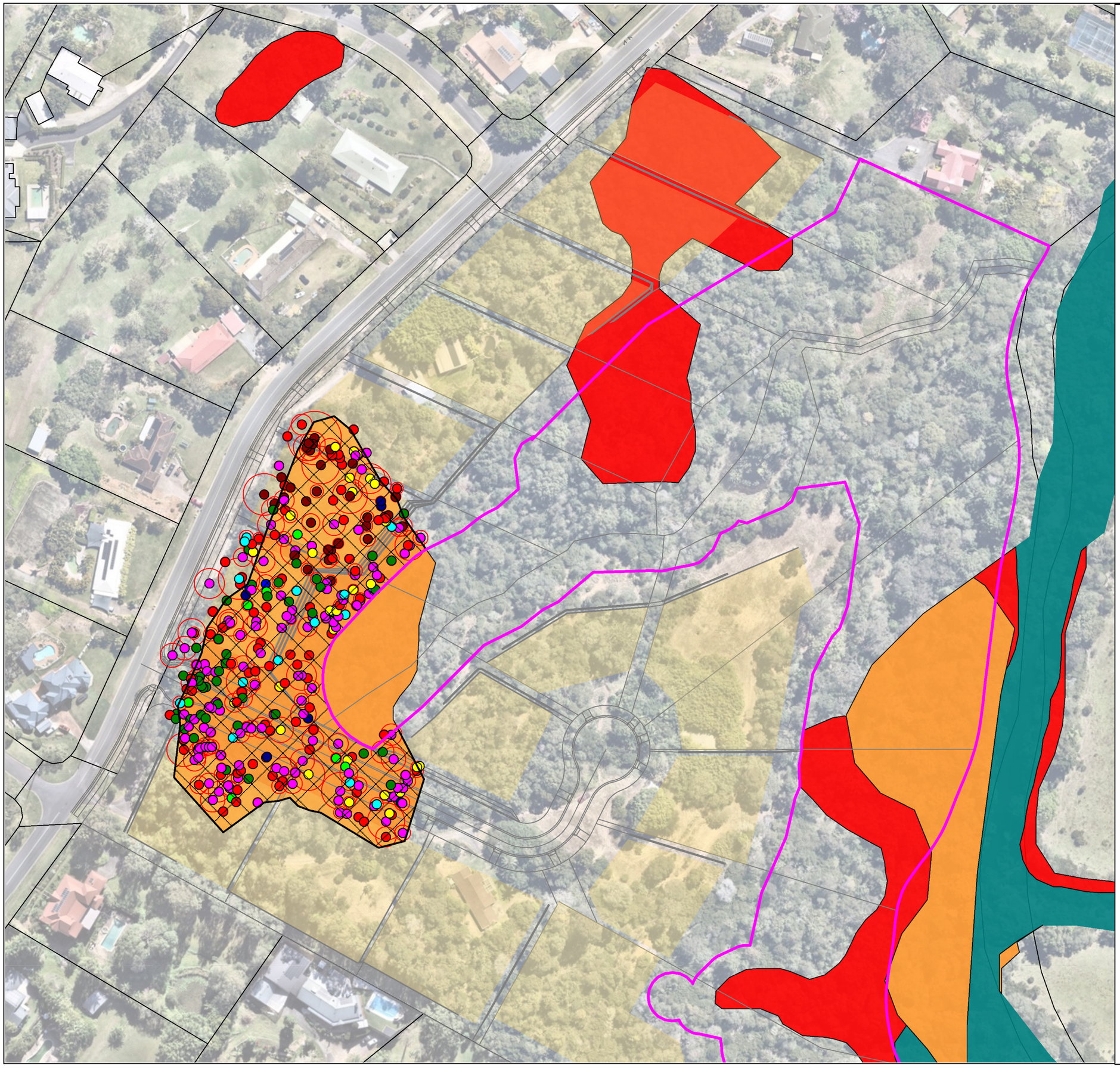
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ULTIMATE PLANNING SOLUTIONS

ATTACHMENT 3

MEDIUM PRIORITY VEGETATION SRI PLAN

Telephone: 07 5649 8665 **Web:** ultimateplanning.com.au



98 Glenmore Road, Bonogin
Medium Priority Vegetation Significant Residual Impact

Environmental Protection / Rehabilitation Area-

Prohibition of native vegetation clearing except where expressly approved by Council
Prohibition of activities that could adversely affect ecological values, including placement of fill, vehicle parking, storage of materials, or construction of ancillary structures

IMPACTED MPV-0.9967HA

ES Overlay-Vegetation Management MLES

General priority vegetation - [d or regrowth RE12.11.24/VT1]

Medium priority vegetation - [RE12.11.24 / VT1]

ES Overlay-Vegetation Management MLES

Regulated Vegetation - [d or regrowth RE12.3.2 VT2b]

TREE SPECIES WITHIN MPV

Acacia spp	(84)
Allocasuarina littoralis	(7)
Corymbia citriodora	(2)
Corymbia intermedia	(122)
Eucalyptus siderophloia	(28)
Eucalyptus tereticornis	(15)
Eucalyptus tindaliae/E.carnea	(30)
Lophostemon confertus	(46)
Lophostemon suaveolens	(6)

N
W E
S

0 100
metres
Scale 1:1,500

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
1	II20	20	II	Eucalyptus siderophloia	no	2.4	YES	MEDIUM	-28.122431	153.353637	534731.224062100	6889184.677476670	60.457031	1.683371515
2	II10	10	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122419	153.353622	534729.756301816	6889186.007206000	60.517082	1.5
3	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122434	153.353629	534730.440706892	6889184.347543820	60.181618	1.5
4	SS15	15	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122464	153.353617	534729.253305314	6889181.028219460	60.761581	1.5
5	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.122468	153.353572	534724.833532771	6889180.598306970	60.746586	1.5
6	WW12	12	WW	Acacia spp	no	2	NO	NONE	-28.122444	153.353564	534724.050177563	6889183.257765640	60.712151	1.5
7	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122431	153.353558	534723.464722618	6889184.697472590	60.684189	1.532772742
8	WW20	20	WW	Acacia spp	no	2.4	NO	NONE	-28.122433	153.353531	534720.817806599	6889184.487515330	60.974411	1.683371515
9	SS65	65	SS	Eucalyptus tindaliae/E.carnea	no	7.8	YES	MEDIUM	-28.12247	153.353484	534716.191887949	6889180.398347670	60.545116	2.761664934
10	SS35	35	SS	Eucalyptus tindaliae/E.carnea	no	4.2	YES	MEDIUM	-28.122416	153.353438	534711.689656963	6889186.397126640	62.256805	2.129393649
11	SS92	92	SS	Eucalyptus tindaliae/E.carnea	no	11.04	YES	MEDIUM	-28.12237	153.353457	534713.569709463	6889191.486090790	62.329872	3.19549589
12	SS46	46	SS	Eucalyptus tindaliae/E.carnea	no	5.52	YES	MEDIUM	-28.122405	153.353425	534710.411551097	6889187.616878360	62.092594	2.388392315
13	SS43	43	SS	Eucalyptus tindaliae/E.carnea	no	5.16	YES	MEDIUM	-28.122392	153.35345	534712.877058542	6889189.046587350	61.987934	2.321689446
14	SS14	14	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122389	153.353433	534711.203152150	6889189.386518150	62.039833	1.5
15	SS38	38	SS	Eucalyptus tindaliae/E.carnea	no	4.56	YES	MEDIUM	-28.122412	153.353523	534720.034451391	6889186.817041160	61.059288	2.204227855
16	II12	12	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122403	153.353545	534722.203108440	6889187.806839690	60.700634	1.5
17	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.122338	153.353621	534729.682089217	6889194.985378520	59.88715	1.5
18	WW36	36	WW	Acacia spp	no	4.32	NO	NONE	-28.12232	153.353404	534708.383073400	6889197.044959300	61.808926	2.154737779
19	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122364	153.353344	534702.470803040	6889192.185948340	62.393898	1.532772742
20	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122473	153.353309	534698.999302591	6889180.118404650	62.581474	1.5
21	SS15	15	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122516	153.353319	534699.972312218	6889175.349375370	62.013012	1.5
22	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122546	153.353333	534701.332876527	6889172.020053050	61.634995	1.532772742
23	SS15	15	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122554	153.353357	534703.691187996	6889171.130234170	61.479427	1.5
24	SS14	14	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122591	153.35333	534701.027780288	6889167.041066510	61.500538	1.5
25	BW35	35	BW	Corymbia intermedia	no	4.2	YES	MEDIUM	-28.122601	153.353331	534701.118484575	6889165.931292400	61.725861	2.129393649
26	SS72	72	SS	Eucalyptus tindaliae/E.carnea	no	8.64	YES	MEDIUM	-28.12258	153.353247	534692.880886124	6889168.280814160	62.617382	2.882883047
27	SS25	25	SS	Eucalyptus tindaliae/E.carnea	no	3	YES	MEDIUM	-28.122614	153.353291	534697.185216846	6889164.501583410	61.268017	1.848766996
28	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122639	153.353336	534701.596743545	6889161.722149160	61.245644	1.532772742
29	II25	25	II	Eucalyptus siderophloia	no	3	YES	MEDIUM	-28.122658	153.353357	534703.658204619	6889159.612578550	61.195602	1.848766996
30	BB40	40	BB	Lophostemon confertus	no	4.8	YES	MEDIUM	-28.122637	153.353285	534696.591516057	6889161.962100310	61.721722	2.252229135
31	BW46	46	BW	Corymbia intermedia	no	5.52	YES	MEDIUM	-28.122692	153.353276	534695.692719029	6889155.863341700	61.709465	2.388392315
32	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.12273	153.353292	534697.251183601	6889151.654198460	61.396351	1.5
33	WW21	21	WW	Acacia spp	no	2.52	NO	NONE	-28.122744	153.353225	534690.662754008	6889150.124509820	62.666992	1.718222808
34	BB19	19	BB	Lophostemon confertus	no	2.28	YES	MEDIUM	-28.122784	153.353184	534686.622290303	6889145.705409320	62.623936	1.647494177
35	II18	18	II	Eucalyptus siderophloia	no	2.16	YES	MEDIUM	-28.122793	153.353201	534688.287950851	6889144.695614860	62.754414	1.610504075
36	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.122764	153.353196	534687.809691882	6889147.914959570	62.746552	1.5
37	BG25	25	BG	Eucalyptus tereticornis	no	3	YES	HIGHER	-28.12274	153.353174	534685.657526520	6889150.574418240	63.052593	1.848766996
38	BG18	18	BG	Eucalyptus tereticornis	no	2.16	YES	HIGHER	-28.122755	153.353166	534684.865925468	6889148.924754030	63.002201	1.610504075
39	BW32	32	BW	Corymbia intermedia	no	3.84	YES	MEDIUM	-28.122813	153.353158	534684.057832727	6889142.496062570	61.855602	2.050738887
40	BW40	40	BW	Corymbia intermedia	no	4.8	YES	MEDIUM	-28.122827	153.353245	534692.600527418	6889140.916384110	61.481766	2.252229135
41	CC16	16	CC	Corymbia citriodora	no	2	YES	MEDIUM	-28.12293	153.353187	534686.869665632	6889129.528702040	61.022587	1.532772742
42	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122915	153.353196	534687.760216816	6889131.188364220	61.03405	1.5
43	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122934	153.353195	534687.653020840	6889129.078793620	61.272549	1.5

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
44	SB13	13	SB	Lophostemon suaveolens	no	2	YES	MEDIUM	-28.122954	153.353171	534685.294709371	6889126.869243360	61.589001	1.5
45	WW17	17	WW	Acacia spp	no	2.04	NO	NONE	-28.122913	153.353148	534683.043593878	6889131.418317410	62.856594	1.57230184
46	WW18	18	WW	Acacia spp	no	2.16	NO	NONE	-28.122888	153.353154	534683.645540512	6889134.187753700	63.006485	1.610504075
47	BG71	71	BG	Eucalyptus tereticornis	no	8.52	YES	HIGHER	-28.122893	153.353143	534682.565334909	6889133.637865630	63.314987	2.865997995
48	WW17	17	WW	Acacia spp	no	2.04	NO	NONE	-28.122831	153.353085	534676.883948189	6889140.526463480	63.7929	1.57230184
49	BW52	52	BW	Corymbia intermedia	no	6.24	YES	MEDIUM	-28.122911	153.353019	534670.377977040	6889131.678264500	65.712677	2.514599241
50	WW18	18	WW	Acacia spp	no	2.16	NO	NONE	-28.123015	153.353034	534671.820999792	6889120.150610920	64.04834	1.610504075
51	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122974	153.353092	534677.527124044	6889124.679689040	62.827682	1.532772742
52	BW29	29	BW	Corymbia intermedia	no	3.48	YES	MEDIUM	-28.123048	153.353099	534678.186791588	6889116.481357790	63.082104	1.967680288
53	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.123067	153.353087	534677.007635854	6889114.381785150	63.159824	1.5
54	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.123075	153.353075	534675.828480119	6889113.491966270	63.143589	1.5
55	BW46	46	BW	Corymbia intermedia	no	5.52	YES	MEDIUM	-28.123056	153.353106	534678.879442509	6889115.591538910	63.227737	2.388392315
56	BB18	18	BB	Lophostemon confertus	no	2.16	YES	MEDIUM	-28.123117	153.353058	534674.138082039	6889108.852910540	63.747414	1.610504075
57	WW24	24	WW	Acacia spp	no	2.88	NO	NONE	-28.123099	153.353025	534670.905711075	6889110.852503530	64.931412	1.817339631
58	WW21	21	WW	Acacia spp	no	2.52	NO	NONE	-28.123095	153.352955	534664.036922776	6889111.312409910	65.833389	1.718222808
59	BW48	48	BW	Corymbia intermedia	no	5.76	YES	MEDIUM	-28.123093	153.352946	534663.146371592	6889111.542363110	66.212067	2.431468768
60	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.12315	153.352965	534665.001686559	6889105.223649260	64.95327	1.5
61	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.12321	153.353	534668.415466097	6889098.565004610	63.698624	1.5
62	BW19	19	BW	Corymbia intermedia	no	2.28	YES	MEDIUM	-28.123213	153.352967	534665.174849289	6889098.245069730	65.225212	1.647494177
63	BW41	41	BW	Corymbia intermedia	no	4.92	YES	MEDIUM	-28.123151	153.352916	534660.186113490	6889105.123669610	65.586288	2.275708311
64	BW42	42	BW	Corymbia intermedia	no	5.04	YES	MEDIUM	-28.123178	153.352865	534655.164394314	6889102.144276060	67.297218	2.29885764
65	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123253	153.352911	534659.658379455	6889093.825969230	65.412811	1.5
66	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123303	153.352925	534661.018943764	6889088.287096650	65.838142	1.5
67	BW35	35	BW	Corymbia intermedia	no	4.2	YES	MEDIUM	-28.123262	153.352975	534665.941712809	6889092.806176800	64.815117	2.129393649
68	BB11	11	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123257	153.35298	534666.436463466	6889093.366062840	64.798256	1.5
69	BW16	16	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123236	153.35301	534669.388475724	6889095.675592740	64.774727	1.532772742
70	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123239	153.353045	534672.826992796	6889095.335661930	64.749443	1.5
71	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123207	153.353088	534677.057110920	6889098.874941520	62.307629	1.532772742
72	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123236	153.35306	534674.302998925	6889095.665594780	62.298325	1.5
73	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123273	153.35305	534673.305251765	6889091.566429150	62.289562	1.5
74	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123295	153.353006	534668.976183509	6889089.146921630	62.278305	1.5
75	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123298	153.352994	534667.797027775	6889088.816988790	62.273022	1.5
76	BB15	15	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123291	153.352987	534667.112622698	6889089.596830060	62.268173	1.5
77	BB18	18	BB	Lophostemon confertus	no	2.16	YES	MEDIUM	-28.123272	153.352975	534665.941712809	6889091.706400660	64.78936	1.610504075
78	BB12	12	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123263	153.35295	534663.484451208	6889092.706197150	64.773689	1.5
79	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.123264	153.352943	534662.800046132	6889092.596219540	65.032799	1.5
80	BW37	37	BW	Corymbia intermedia	no	4.44	YES	MEDIUM	-28.123279	153.352947	534663.187600814	6889090.936557360	65.314346	2.179676791
81	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123309	153.352947	534663.179354969	6889087.607235030	65.518768	1.532772742
82	AL19	19	AL	Allocasuarina littoralis	no	2.28	NO	LOWER	-28.123352	153.352932	534661.695102996	6889082.848203720	65.794785	1.647494177
83	BG25	25	BG	Eucalyptus tereticornis	no	3	YES	HIGHER	-28.123355	153.352898	534658.355536056	6889082.528268840	67.537521	1.848766996
84	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123395	153.352883	534656.863038239	6889078.099170370	67.657402	1.5
85	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.123399	153.352855	534654.117172088	6889077.669257880	67.638519	1.5
86	BB11	11	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123413	153.35288	534656.566187844	6889076.109575350	67.615181	1.5

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
87	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123397	153.352915	534660.004704915	6889077.869217180	67.590561	1.5
88	BB13	13	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123415	153.352941	534662.552670803	6889075.869624190	66.147102	1.5
89	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123415	153.352958	534664.226577195	6889075.869624190	65.603188	1.5
90	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123398	153.352985	534666.881739058	6889077.739243630	65.592819	1.5
91	BB12	12	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123411	153.353005	534668.844250001	6889076.299536680	64.567383	1.5
92	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123446	153.352998	534668.143353236	6889072.420326280	64.556633	1.5
93	BW18	18	BW	Corymbia intermedia	no	2.16	YES	MEDIUM	-28.123463	153.353026	534670.889219386	6889070.530710910	64.363304	1.610504075
94	BB11	11	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123525	153.352974	534665.760304234	6889063.672106960	65.383629	1.5
95	BW31	31	BW	Corymbia intermedia	no	3.72	YES	MEDIUM	-28.123532	153.352975	534665.859254366	6889062.902263660	64.650734	2.023574916
96	BW25	25	BW	Corymbia intermedia	no	3	YES	MEDIUM	-28.123521	153.35298	534666.354005023	6889064.112017420	64.496254	1.848766996
97	BW32	32	BW	Corymbia intermedia	no	3.84	YES	MEDIUM	-28.123517	153.353005	534668.811266624	6889064.551927870	64.414368	2.050738887
98	BW27	27	BW	Corymbia intermedia	no	3.24	YES	MEDIUM	-28.123518	153.353019	534670.180076777	6889064.441950260	63.880383	1.909502172
99	WW58	58	WW	Acacia spp	no	6.96	NO	NONE	-28.123528	153.352914	534659.864525562	6889063.362170040	66.196198	2.632613676
100	WW10	10	WW	Acacia spp	no	2	NO	NONE	-28.123491	153.352913	534659.782067119	6889067.461335670	66.170372	1.5
101	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123485	153.352919	534660.375767909	6889068.121201360	66.150246	1.5
102	BB14	14	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123451	153.352917	534660.186113490	6889071.890434140	65.985214	1.5
103	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123485	153.352956	534664.003939399	6889068.111203390	66.396317	1.5
104	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123442	153.352934	534661.860019882	6889072.880232670	66.509521	1.5
105	BW38	38	BW	Corymbia intermedia	no	4.56	YES	MEDIUM	-28.123566	153.352959	534664.276052261	6889059.133030870	65.220444	2.204227855
106	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.123557	153.352975	534665.851008521	6889060.132827370	64.679932	1.879473393
107	BW25	25	BW	Corymbia intermedia	no	3	YES	MEDIUM	-28.123517	153.353032	534671.458182643	6889064.541929910	64.11248	1.848766996
108	WW23	23	WW	Acacia spp	no	2.76	NO	NONE	-28.12362	153.353069	534675.061616600	6889053.124253940	62.979927	1.785143229
109	BW36	36	BW	Corymbia intermedia	no	4.32	YES	MEDIUM	-28.123683	153.353061	534674.253523859	6889046.145674410	63.806877	2.154737779
110	WW31	31	WW	Acacia spp	no	3.72	NO	NONE	-28.123667	153.353019	534666.065400473	6889048.955102560	63.948437	2.023574916
111	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.12367	153.353106	534678.681542246	6889047.575383400	62.50531	1.879473393
112	BW23	23	BW	Corymbia intermedia	no	2.76	YES	MEDIUM	-28.123632	153.353141	534682.128305162	6889051.774528680	61.453472	1.785143229
113	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123614	153.353139	534681.938650743	6889053.764123700	61.460789	1.532772742
114	WW12	12	WW	Acacia spp	no	2	NO	NONE	-28.123605	153.353153	534683.315706740	6889054.763920190	61.468662	1.5
115	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123635	153.353185	534686.449127573	6889051.434597870	60.909531	1.532772742
116	BW38	38	BW	Corymbia intermedia	no	4.56	YES	MEDIUM	-28.12366	153.3531	534678.096087301	6889048.685157510	62.33551	2.204227855
117	AL13	13	AL	Allocasuarina littoralis	no	2	NO	LOWER	-28.123707	153.353115	534679.547355897	6889043.476217770	61.697243	1.5
118	WW17	17	WW	Acacia spp	no	2.04	NO	NONE	-28.123677	153.353138	534681.814963078	6889046.785544170	61.741108	1.57230184
119	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.123721	153.353134	534681.410916708	6889041.916535240	62.922546	1.5
120	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123711	153.353098	534676.051117916	6889037.947343160	62.870949	1.532772742
121	BW42	42	BW	Corymbia intermedia	no	5.04	YES	MEDIUM	-28.123712	153.353077	534671.746787193	6889042.726370400	63.19495	2.29885764
122	BW36	36	BW	Corymbia intermedia	no	4.32	YES	MEDIUM	-28.123691	153.353043	534670.237797687	6889049.534984530	63.733482	2.154737779
123	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.12358	153.353203	534688.230229941	6889057.513360550	59.14909	1.5
124	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123556	153.353259	534693.738453930	6889060.162821260	58.462692	1.5
125	SB15	15	SB	Lophostemon suaveolens	no	2	YES	MEDIUM	-28.123553	153.353262	534694.035304325	6889060.492754110	58.47023	1.5
126	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123624	153.353286	534696.368878261	6889052.614357730	58.629391	1.5
127	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123595	153.353302	534697.952080366	6889055.823704480	57.577	1.5
128	BW47	47	BW	Corymbia intermedia	no	5.64	YES	MEDIUM	-28.123606	153.353334	534701.093747043	6889054.603952760	57.391766	2.410063448
129	WW18	18	WW	Acacia spp	no	2.16	NO	NONE	-28.123644	153.353327	534700.392850277	6889050.394809510	58.682423	1.610504075

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
130	WW26	26	WW	Acacia spp	no	3.12	NO	NONE	-28.123662	153.353314	534699.106498567	6889048.405214490	58.739731	1.879473393
131	BW34	34	BW	Corymbia intermedia	no	4.08	YES	MEDIUM	-28.123653	153.353369	534704.515772425	6889049.385015050	58.406624	2.103625957
132	II56	56	II	Eucalyptus siderophloia	no	6.72	YES	MEDIUM	-28.123618	153.353436	534711.104202018	6889053.244229520	57.814754	2.594097811
133	BW64	64	BW	Corymbia intermedia	no	7.68	YES	MEDIUM	-28.123679	153.353569	534724.149127694	6889046.445613360	57.985474	2.743740064
134	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.123715	153.353562	534723.448230929	6889042.456425350	58.678219	1.57230184
135	BW22	22	BW	Corymbia intermedia	no	2.64	YES	MEDIUM	-28.123759	153.353568	534724.025440030	6889037.587416420	58.661522	1.752124255
136	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123764	153.353598	534726.969206444	6889037.017532420	59.335068	1.5
137	II21	21	II	Eucalyptus siderophloia	no	2.52	YES	MEDIUM	-28.123721	153.353607	534727.868003472	6889041.786561700	58.464447	1.718222808
138	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.123776	153.353646	534731.677583537	6889035.677805120	59.596977	1.5
139	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.123793	153.353669	534733.928699029	6889033.788189740	59.581287	1.5
140	BW64	64	BW	Corymbia intermedia	no	7.68	YES	MEDIUM	-28.123792	153.353761	534742.966144378	6889033.868173460	60.564629	2.743740064
141	WW35	35	WW	Acacia spp	no	4.2	NO	NONE	-28.123849	153.353761	534742.949652689	6889027.559457580	60.427567	2.129393649
142	BW27	27	BW	Corymbia intermedia	no	3.24	YES	MEDIUM	-28.123834	153.353831	534749.826686832	6889029.199123830	61.495693	1.909502172
143	WW11	11	WW	Acacia spp	no	2	NO	NONE	-28.123767	153.353785	534745.332701691	6889036.637609750	59.442234	1.5
144	II17	17	II	Eucalyptus siderophloia	no	2.04	YES	MEDIUM	-28.123762	153.353775	534744.351446220	6889037.187497820	59.111797	1.57230184
145	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123701	153.353778	534744.664788303	6889043.946122120	58.029881	1.5
146	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123699	153.353794	534746.239744563	6889044.166077350	58.011009	1.5
147	SB15	15	SB	Lophostemon suaveolens	no	2	YES	MEDIUM	-28.12372	153.353822	534748.977364870	6889041.826553560	57.984158	1.5
148	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.123724	153.353829	534749.670015791	6889041.386643100	58.401936	1.879473393
149	II10	10	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.123684	153.35382	534748.795956295	6889045.815741570	57.352097	1.5
150	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123668	153.353832	534749.983357874	6889047.585381360	57.341473	1.5
151	BW27	27	BW	Corymbia intermedia	no	3.24	YES	MEDIUM	-28.123641	153.353852	534751.954114661	6889050.574772880	57.190388	1.909502172
152	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123619	153.353842	534750.981105034	6889053.014276330	56.780125	1.5
153	WW23	23	WW	Acacia spp	no	2.76	NO	NONE	-28.123604	153.353889	534755.598777839	6889054.663940540	56.493866	1.785143229
154	II12	12	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.123586	153.353901	534756.786179418	6889056.653535570	56.488068	1.5
155	II21	21	II	Eucalyptus siderophloia	no	2.52	YES	MEDIUM	-28.12359	153.35389	534755.697727971	6889056.213625110	56.483376	1.718222808
156	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123667	153.35381	534747.822946668	6889047.705356940	57.298138	1.5
157	BW42	42	BW	Corymbia intermedia	no	5.04	YES	MEDIUM	-28.123561	153.353792	534746.083073522	6889059.452965750	55.567223	2.29885764
158	BB39	39	BB	Lophostemon confertus	no	4.68	YES	MEDIUM	-28.123534	153.353746	534741.580842536	6889062.462353200	54.395138	2.228406983
159	BW37	37	BW	Corymbia intermedia	no	4.44	YES	MEDIUM	-28.12347	153.353782	534745.134801428	6889069.540912380	53.317589	2.179676791
160	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.12347	153.353752	534742.191035014	6889069.550910340	53.862946	1.532772742
161	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.12354	153.353667	534733.813257209	6889061.812485480	54.892731	1.5
162	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123553	153.353618	534728.997684140	6889060.392774460	54.131413	1.532772742
163	II11	11	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.123564	153.3536	534727.224827617	6889059.173022730	54.454391	1.5
164	AL15	15	AL	Allocasuarina littoralis	no	2	NO	LOWER	-28.123589	153.35359	534726.235326301	6889056.413584410	54.444721	1.5
165	BW31	31	BW	Corymbia intermedia	no	3.72	YES	MEDIUM	-28.123613	153.353605	534727.703086586	6889053.744127770	55.063107	2.023574916
166	AL19	19	AL	Allocasuarina littoralis	no	2.28	NO	LOWER	-28.123558	153.353551	534722.417500392	6889059.852884350	54.922871	1.647494177
167	BW35	35	BW	Corymbia intermedia	no	4.2	YES	MEDIUM	-28.123504	153.35356	534723.316297420	6889065.831667390	53.884571	2.129393649
168	BW38	38	BW	Corymbia intermedia	no	4.56	YES	MEDIUM	-28.123492	153.353454	534712.910041919	6889067.191390620	54.018333	2.204227855
169	WW18	18	WW	Acacia spp	no	2.16	NO	NONE	-28.123452	153.353456	534713.124433871	6889071.620489090	54.454956	1.610504075
170	SB13	13	SB	Lophostemon suaveolens	no	2	YES	MEDIUM	-28.12341	153.353434	534710.972268509	6889076.279540750	53.431633	1.5
171	BW44	44	BW	Corymbia intermedia	no	5.28	YES	MEDIUM	-28.123394	153.353414	534709.018003411	6889078.059178510	54.848915	2.344215321
172	WW12	12	WW	Acacia spp	no	2	NO	NONE	-28.12337	153.35344	534711.574215143	6889080.708639220	54.840347	1.5

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
173	BW25	25	BW	Corymbia intermedia	no	3	YES	MEDIUM	-28.123344	153.353406	534708.242894047	6889083.598051090	56.570648	1.848766996
174	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.123298	153.353449	534712.481258015	6889088.687015250	55.825802	1.879473393
175	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123261	153.353431	534710.724893180	6889092.786180870	55.659088	1.532772742
176	BW51	51	BW	Corymbia intermedia	no	6.12	YES	MEDIUM	-28.123251	153.353406	534708.275877424	6889093.905952950	56.560673	2.494174586
177	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123252	153.353392	534706.898821427	6889093.795975330	56.201797	1.5
178	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123211	153.353388	534706.519512589	6889098.345049380	56.604069	1.532772742
179	WW17	17	WW	Acacia spp	no	2.04	NO	NONE	-28.123176	153.353437	534711.343331503	6889102.204263850	55.600357	1.57230184
180	BW33	33	BW	Corymbia intermedia	no	3.96	YES	MEDIUM	-28.123071	153.35343	534710.691909803	6889113.841895040	55.032322	2.077414844
181	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123095	153.353531	534720.603414647	6889111.152442470	53.602921	1.532772742
182	II16	16	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.123067	153.353541	534721.592915963	6889114.251811610	53.295811	1.532772742
183	II15	15	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.12308	153.353539	534721.395015699	6889112.812104650	53.185162	1.5
184	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123071	153.353549	534722.376271171	6889113.801903180	53.175232	1.5
185	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123053	153.353539	534721.403261544	6889115.801496170	53.169804	1.5
186	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123039	153.353507	534718.261594867	6889117.361178700	53.164341	1.5
187	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.12303	153.353504	534717.972990317	6889118.360975200	52.949417	1.5
188	BB14	14	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123015	153.353532	534720.727102311	6889120.010639410	53.244293	1.5
189	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123004	153.353549	534722.401008704	6889121.230391140	53.232891	1.5
190	II14	14	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.12301	153.353524	534719.943747103	6889120.570525450	52.80315	1.5
191	BG17	17	BG	Eucalyptus tereticornis	no	2.04	YES	HIGHER	-28.123025	153.353588	534726.227080457	6889118.890867340	51.6511	1.57230184
192	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122973	153.35365	534732.329005236	6889124.629699220	52.070213	1.5
193	BW16	16	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122947	153.353687	534735.973668415	6889127.499115160	52.397186	1.532772742
194	BG18	18	BG	Eucalyptus tereticornis	no	2.16	YES	HIGHER	-28.122927	153.353705	534737.746524938	6889129.708665410	52.630962	1.610504075
195	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122932	153.353714	534738.628830278	6889129.158777340	52.598656	1.5
196	II16	16	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122911	153.353695	534736.765269467	6889131.488303170	53.742821	1.532772742
197	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.122889	153.353733	534740.508882778	6889133.917808650	53.691929	1.5
198	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122878	153.35372	534739.239022756	6889135.137560370	53.694237	1.5
199	BB12	12	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122824	153.353781	534745.241997404	6889141.096347480	53.242496	1.5
200	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122797	153.353836	534750.651271262	6889144.075741030	51.946678	1.5
201	BW51	51	BW	Corymbia intermedia	no	6.12	YES	MEDIUM	-28.122768	153.353857	534752.729224024	6889147.285087780	52.033405	2.494174586
202	WW10	10	WW	Acacia spp	no	2	NO	NONE	-28.122767	153.35385	534752.036573104	6889147.395065390	51.991997	1.5
203	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.122739	153.353902	534757.157242411	6889150.484436560	51.529541	1.879473393
204	SS34	34	SS	Eucalyptus tindaliae/E.carnea	no	4.08	YES	MEDIUM	-28.122697	153.353826	534749.702999168	6889155.153486190	52.913048	2.103625957
205	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122649	153.353832	534750.304945801	6889160.472403540	53.004799	1.532772742
206	BW31	31	BW	Corymbia intermedia	no	3.72	YES	MEDIUM	-28.122702	153.353812	534748.325943170	6889154.603598120	54.137333	2.023574916
207	BG10	10	BG	Eucalyptus tereticornis	no	2	YES	HIGHER	-28.122698	153.353781	534745.283226625	6889155.063504500	54.075474	1.5
208	II13	13	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122679	153.353757	534742.933161001	6889157.173075110	54.244545	1.5
209	WW11	11	WW	Acacia spp	no	2	NO	NONE	-28.122661	153.353753	534742.545606319	6889159.162670130	54.199596	1.5
210	SS14	14	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122656	153.353767	534743.922662316	6889159.712558200	54.150982	1.5
211	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.122667	153.353755	534742.743506582	6889158.502804440	54.829056	1.5
212	SB17	17	SB	Lophostemon suaveolens	no	2.04	YES	MEDIUM	-28.122622	153.353737	534740.987141747	6889163.491788950	54.97049	1.57230184
213	SB18	18	SB	Lophostemon suaveolens	no	2.16	YES	MEDIUM	-28.122604	153.353735	534740.797487328	6889165.481383970	55.118229	1.610504075
214	SS18	18	SS	Eucalyptus tindaliae/E.carnea	no	2.16	YES	MEDIUM	-28.122587	153.353798	534746.990116394	6889167.351003420	54.116219	1.610504075
215	WW21	21	WW	Acacia spp	no	2.52	NO	NONE	-28.122556	153.353803	534747.493112896	6889170.780305390	53.910313	1.718222808

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
216	WW13	13	WW	Acacia spp	no	2	NO	NONE	-28.122531	153.353748	534742.100330727	6889173.569737610	55.027225	1.5
217	II52	52	II	Eucalyptus siderophloia	no	6.24	YES	MEDIUM	-28.12252	153.35369	534736.402452318	6889174.799487300	55.057514	2.514599241
218	II56	56	II	Eucalyptus siderophloia	no	6.72	YES	MEDIUM	-28.122539	153.35371	534738.364963261	6889172.689916700	55.653755	2.594097811
219	BW12	12	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122486	153.353655	534732.980426935	6889178.578718050	56.260612	1.5
220	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122424	153.353675	534734.959429566	6889185.437322000	56.410252	1.5
221	II15	15	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122517	153.353605	534728.057657891	6889175.159414040	48.367992	1.5
222	II35	35	II	Eucalyptus siderophloia	no	4.2	YES	MEDIUM	-28.12257	153.353616	534729.121371805	6889169.280610650	48.235691	2.129393649
223	SS60	60	SS	Eucalyptus tindaliae/E.carnea	no	7.2	YES	MEDIUM	-28.122585	153.353606	534728.131870489	6889167.630946440	48.817837	2.670366684
224	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.122674	153.35358	534725.550921225	6889157.772953000	47.970257	1.5
225	BW39	39	BW	Corymbia intermedia	no	4.68	YES	MEDIUM	-28.12269	153.35354	534721.617653495	6889156.013311170	48.867222	2.228406983
226	SS23	23	SS	Eucalyptus tindaliae/E.carnea	no	2.76	YES	MEDIUM	-28.122568	153.353467	534714.484998179	6889169.550555710	50.31419	1.785143229
227	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.122601	153.353536	534721.254836346	6889165.871304610	50.341091	1.5
228	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.122562	153.35357	534724.602649131	6889170.180427500	50.084721	1.5
229	SS15	15	SS	Eucalyptus tindaliae/E.carnea	no	2	YES	MEDIUM	-28.122605	153.353423	534710.155929924	6889165.461388040	51.79866	1.5
230	SS31	31	SS	Eucalyptus tindaliae/E.carnea	no	3.72	YES	MEDIUM	-28.122684	153.353443	534712.093703333	6889156.703170750	51.67947	2.023574916
231	AL12	12	AL	Allocasuarina littoralis	no	2	NO	LOWER	-28.122728	153.353387	534706.577233499	6889151.844159790	51.730915	1.5
232	BW26	26	BW	Corymbia intermedia	no	3.12	YES	MEDIUM	-28.122745	153.35333	534700.978305222	6889149.984538310	52.657673	1.879473393
233	BW51	51	BW	Corymbia intermedia	no	6.12	YES	MEDIUM	-28.122787	153.353378	534705.678436471	6889145.315488680	52.249432	2.494174586
234	SS17	17	SS	Eucalyptus tindaliae/E.carnea	no	2.04	YES	MEDIUM	-28.122806	153.353375	534705.373340232	6889143.205918080	51.857262	1.57230184
235	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122835	153.353383	534706.148449596	6889139.996571330	52.367744	1.532772742
236	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.122892	153.353322	534700.145474949	6889133.697853420	53.01194	1.5
237	CC32	32	CC	Corymbia citriodora	no	3.84	YES	MEDIUM	-28.122912	153.353255	534693.557045356	6889131.498301130	52.870541	2.050738887
238	BB22	22	BB	Lophostemon confertus	no	2.64	YES	MEDIUM	-28.122906	153.353308	534698.760173107	6889132.148168850	53.216984	1.752124255
239	BW16	16	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122955	153.353319	534699.823887021	6889126.719273890	52.595543	1.532772742
240	AL10	10	AL	Allocasuarina littoralis	no	2	NO	LOWER	-28.12294	153.353258	534693.837404062	6889128.398932000	53.526829	1.5
241	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122958	153.353262	534694.224958744	6889126.409336980	53.547508	1.5
242	AL20	20	AL	Allocasuarina littoralis	no	2.4	NO	LOWER	-28.122991	153.353179	534686.069818735	6889122.770077740	55.153324	1.683371515
243	BW32	32	BW	Corymbia intermedia	no	3.84	YES	MEDIUM	-28.123051	153.353216	534689.681498537	6889116.111433090	53.840412	2.050738887
244	WW10	10	WW	Acacia spp	no	2	NO	NONE	-28.122998	153.353258	534693.820912373	6889121.970240540	52.82877	1.5
245	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123018	153.353205	534688.609538778	6889119.770688250	54.916389	1.5
246	BW41	41	BW	Corymbia intermedia	no	4.92	YES	MEDIUM	-28.123069	153.353213	534689.376402298	6889114.121838060	54.589142	2.275708311
247	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.12313	153.353234	534691.421371683	6889107.363213760	54.374386	1.532772742
248	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123151	153.353223	534690.332920236	6889105.033687930	54.41758	1.532772742
249	BW49	49	BW	Corymbia intermedia	no	5.88	YES	MEDIUM	-28.123169	153.353234	534691.413125839	6889103.034094940	54.967167	2.452616973
250	BW38	38	BW	Corymbia intermedia	no	4.56	YES	MEDIUM	-28.123219	153.353162	534684.321699744	6889097.515218290	55.858543	2.204227855
251	WW22	22	WW	Acacia spp	no	2.64	NO	NONE	-28.123208	153.35311	534679.217522125	6889098.754965940	55.87307	1.752124255
252	BW23	23	BW	Corymbia intermedia	no	2.76	YES	MEDIUM	-28.123102	153.353149	534683.084823100	6889110.482578820	58.527939	1.785143229
253	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123173	153.353091	534677.362207159	6889102.634176340	59.969242	1.532772742
254	WW12	12	WW	Acacia spp	no	2	NO	NONE	-28.123241	153.353185	534686.572815237	6889095.075714850	57.886433	1.5
255	WW12	12	WW	Acacia spp	no	2	NO	NONE	-28.123236	153.353212	534689.227977100	6889095.625602920	57.261341	1.5
256	BW21	21	BW	Corymbia intermedia	no	2.52	YES	MEDIUM	-28.123286	153.35321	534689.013585149	6889090.086730340	57.614143	1.718222808
257	BG57	57	BG	Eucalyptus tereticornis	no	6.84	YES	HIGHER	-28.123277	153.35316	534684.107307793	6889091.096524800	57.416744	2.613453728
258	WW19	19	WW	Acacia spp	no	2.28	NO	NONE	-28.123313	153.353156	534683.703261422	6889087.107336780	58.276535	1.647494177

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
259	II33	33	II	Eucalyptus siderophloia	no	3.96	YES	MEDIUM	-28.123353	153.353125	534680.644053188	6889082.688236280	59.024982	2.077414844
260	BB34	34	BB	Lophostemon confertus	no	4.08	YES	MEDIUM	-28.123335	153.353159	534683.991865973	6889084.667833340	59.807007	2.103625957
261	WW10	10	WW	Acacia spp	no	2	NO	NONE	-28.123351	153.353135	534681.625308660	6889082.908191510	59.863178	1.5
262	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123382	153.353064	534674.649324385	6889079.488887500	60.983505	1.5
263	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123352	153.35305	534673.280514232	6889082.818209820	61.51461	1.5
264	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123359	153.353055	534673.767019046	6889082.038368560	61.514339	1.5
265	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123373	153.35303	534671.309757445	6889080.498681960	61.971027	1.5
266	BW12	12	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123369	153.353019	534670.229551842	6889080.948590380	62.716553	1.5
267	BB12	12	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123438	153.353139	534681.996371653	6889073.270153300	58.908062	1.5
268	BW20	20	BW	Corymbia intermedia	no	2.4	YES	MEDIUM	-28.123443	153.353177	534685.723493275	6889072.700269300	58.275646	1.683371515
269	BW28	28	BW	Corymbia intermedia	no	3.36	YES	MEDIUM	-28.123448	153.353196	534687.587054086	6889072.140383270	57.963425	1.938892582
270	WW10	10	WW	Acacia spp	no	2	NO	NONE	-28.123434	153.353253	534693.194228207	6889073.680069870	57.34864	1.5
271	WW11	11	WW	Acacia spp	no	2	NO	NONE	-28.123456	153.353275	534695.346393568	6889071.230568450	57.384354	1.5
272	BW36	36	BW	Corymbia intermedia	no	4.32	YES	MEDIUM	-28.123446	153.353239	534691.808926365	6889072.350340530	57.363541	2.154737779
273	BW33	33	BW	Corymbia intermedia	no	3.96	YES	MEDIUM	-28.123466	153.35315	534683.068331411	6889070.160786210	58.78442	2.077414844
274	BG13	13	BG	Eucalyptus tereticornis	no	2	YES	HIGHER	-28.123483	153.353119	534680.017369022	6889068.291166760	59.623638	1.5
275	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123585	153.353145	534682.532351532	6889056.983468410	59.998348	1.5
276	BB12	12	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123602	153.353091	534677.230273650	6889055.113848970	61.001034	1.5
277	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.123595	153.353072	534675.366712839	6889055.893690230	61.696686	1.57230184
278	BW18	18	BW	Corymbia intermedia	no	2.16	YES	MEDIUM	-28.123548	153.353069	534675.086354133	6889061.102629970	61.8601	1.610504075
279	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.123758	153.353232	534690.209232572	6889041.656588150	60.484844	1.57230184
280	BW18	18	BW	Corymbia intermedia	no	2.16	YES	MEDIUM	-28.123612	153.35338	534705.604223872	6889053.924091140	56.842964	1.610504075
281	BG28	28	BG	Eucalyptus tereticornis	no	3.36	YES	HIGHER	-28.123648	153.353609	534728.082395424	6889049.864917370	56.85516	1.938892582
282	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123685	153.353638	534730.918965861	6889045.765751740	57.416946	1.532772742
283	BW29	29	BW	Corymbia intermedia	no	3.48	YES	MEDIUM	-28.123659	153.353646	534731.718812758	6889048.635167680	56.866531	1.967680288
284	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123735	153.353712	534738.175308842	6889040.196885270	58.824532	1.5
285	BG23	23	BG	Eucalyptus tereticornis	no	2.76	YES	HIGHER	-28.123728	153.353722	534739.156564313	6889040.976726540	58.79221	1.785143229
286	II18	18	II	Eucalyptus siderophloia	no	2.16	YES	MEDIUM	-28.123695	153.353755	534742.405426966	6889044.615985780	57.980366	1.610504075
287	BB10	10	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123656	153.353781	534744.978130386	6889048.935106630	58.136345	1.5
288	BW41	41	BW	Corymbia intermedia	no	4.92	YES	MEDIUM	-28.123568	153.353411	534708.663432106	6889058.783102100	57.46661	2.275708311
289	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123526	153.35344	534711.524740077	6889063.432155800	56.895992	1.5
290	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.123423	153.353383	534705.958795177	6889074.859829730	57.270168	1.532772742
291	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123396	153.35329	534696.838891386	6889077.879215140	59.173347	1.5
292	II44	44	II	Eucalyptus siderophloia	no	5.28	YES	MEDIUM	-28.123453	153.353319	534699.667215979	6889071.550503330	58.058254	2.344215321
293	BB17	17	BB	Lophostemon confertus	no	2.04	YES	MEDIUM	-28.123395	153.353297	534697.523296462	6889077.989192760	59.406246	1.57230184
294	II18	18	II	Eucalyptus siderophloia	no	2.16	YES	MEDIUM	-28.123293	153.353314	534699.230186232	6889089.276895180	60.024109	1.610504075
295	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.12328	153.353336	534701.390597437	6889090.716602130	59.539326	1.5
296	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123217	153.353271	534695.024805641	6889097.715177590	60.248783	1.5
297	BG14	14	BG	Eucalyptus tereticornis	no	2	YES	HIGHER	-28.123195	153.353308	534698.669468819	6889100.134685110	60.268753	1.5
298	WW15	15	WW	Acacia spp	no	2	NO	NONE	-28.123174	153.353359	534703.682942152	6889102.444215010	58.812199	1.5
299	BW10	10	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123075	153.353322	534700.079508194	6889113.421980520	58.532204	1.5
300	BW19	19	BW	Corymbia intermedia	no	2.28	YES	MEDIUM	-28.123042	153.353361	534703.922071636	6889117.071237720	57.459709	1.647494177
301	BW11	11	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123008	153.353365	534704.326118007	6889120.840470500	58.341888	1.5

ID-NO	IDENT	DBH	IDS	SPECIES	HOLLOW	TPZ	NJKHT	KOALA UTILITY	Latitude	Longitude	X_PROJ	Y_PROJ	altitude	SRZ
302	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123031	153.353343	534702.157460957	6889118.290989440	58.368034	1.5
303	BB14	14	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122977	153.353352	534703.064503829	6889124.269772480	59.085514	1.5
304	BG17	17	BG	Eucalyptus tereticornis	no	2.04	YES	HIGHER	-28.122937	153.353384	534706.214416350	6889128.698870950	59.214108	1.57230184
305	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122997	153.35344	534711.697902807	6889122.030228330	57.767532	1.532772742
306	BW13	13	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123035	153.353452	534712.860566853	6889117.821085090	56.850773	1.5
307	BB16	16	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.123019	153.35345	534712.670912434	6889119.590724880	56.857407	1.532772742
308	BG15	15	BG	Eucalyptus tereticornis	no	2	YES	HIGHER	-28.123054	153.35346	534713.643922061	6889115.711514490	55.650242	1.5
309	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.123031	153.353559	534723.374018330	6889118.231001650	55.240566	1.5
310	II13	13	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.123011	153.353551	534722.590663122	6889120.450549870	55.255482	1.5
311	WW22	22	WW	Acacia spp	no	2.64	NO	NONE	-28.12299	153.353565	534723.975964964	6889122.770077740	55.844849	1.752124255
312	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.12297	153.35358	534725.451971093	6889124.979627990	56.082233	1.5
313	BW14	14	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122953	153.353572	534724.676861729	6889126.869243360	56.089073	1.5
314	BG15	15	BG	Eucalyptus tereticornis	no	2	YES	HIGHER	-28.122951	153.353584	534725.856017464	6889127.089198590	55.809361	1.5
315	WW21	21	WW	Acacia spp	no	2.52	NO	NONE	-28.122965	153.353648	534732.139350817	6889125.519518100	54.651962	1.718222808
316	BW19	19	BW	Corymbia intermedia	no	2.28	YES	MEDIUM	-28.12299	153.353636	534730.951949239	6889122.750081810	54.664005	1.647494177
317	II19	19	II	Eucalyptus siderophloia	no	2.28	YES	MEDIUM	-28.122932	153.353621	534729.492434798	6889129.178773270	55.633644	1.647494177
318	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.122878	153.353629	534730.300527539	6889135.157556300	55.666832	1.57230184
319	WW25	25	WW	Acacia spp	no	3	NO	NONE	-28.122863	153.353629	534730.300527539	6889136.827216450	56.032135	1.848766996
320	WW16	16	WW	Acacia spp	no	2	NO	NONE	-28.122818	153.353605	534727.958707759	6889141.816200950	56.291683	1.532772742
321	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.122848	153.353704	534737.672312340	6889138.466882700	55.416122	1.57230184
322	BB17	17	BB	Lophostemon confertus	no	2.04	YES	MEDIUM	-28.122806	153.353701	534737.391953634	6889143.115936400	55.476513	1.57230184
323	SS26	26	SS	Eucalyptus tindaliae/E.carnea	no	3.12	YES	MEDIUM	-28.122744	153.353681	534735.445934380	6889149.994536280	56.643147	1.879473393
324	SS22	22	SS	Eucalyptus tindaliae/E.carnea	no	2.64	YES	MEDIUM	-28.122695	153.353675	534734.876971123	6889155.423431240	56.961014	1.752124255
325	BW15	15	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.12271	153.353642	534731.628108471	6889153.773767030	56.940437	1.5
326	SS19	19	SS	Eucalyptus tindaliae/E.carnea	no	2.28	YES	MEDIUM	-28.122761	153.353558	534723.365772486	6889148.144912760	58.214565	1.647494177
327	SS17	17	SS	Eucalyptus tindaliae/E.carnea	no	2.04	YES	MEDIUM	-28.122787	153.353527	534720.306564252	6889145.275496820	58.188438	1.57230184
328	SS18	18	SS	Eucalyptus tindaliae/E.carnea	no	2.16	YES	MEDIUM	-28.122785	153.353516	534719.226358650	6889145.495452050	58.907219	1.610504075
329	BW12	12	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.12277	153.353447	534712.456520483	6889147.175110160	59.790554	1.5
330	II15	15	II	Eucalyptus siderophloia	no	2	YES	MEDIUM	-28.122796	153.35345	534712.745125033	6889144.295696260	59.753922	1.5
331	SS28	28	SS	Eucalyptus tindaliae/E.carnea	no	3.36	YES	MEDIUM	-28.122822	153.353518	534719.416013068	6889141.396286430	58.645565	1.938892582
332	WW23	23	WW	Acacia spp	no	2.76	NO	NONE	-28.122816	153.353534	534720.990969329	6889142.056152110	58.61327	1.785143229
333	SS21	21	SS	Eucalyptus tindaliae/E.carnea	no	2.52	YES	MEDIUM	-28.1229	153.353526	534720.174630744	6889132.758044720	57.861462	1.718222808
334	BW12	12	BW	Corymbia intermedia	no	2	YES	MEDIUM	-28.122908	153.35351	534718.599674483	6889131.868225830	57.843414	1.5
335	BW17	17	BW	Corymbia intermedia	no	2.04	YES	MEDIUM	-28.12293	153.353511	534718.690378770	6889129.438720350	57.82106	1.57230184
336	BB14	14	BB	Lophostemon confertus	no	2	YES	MEDIUM	-28.122922	153.353484	534716.043462751	6889130.328539230	57.808262	1.5
337	BB22	22	BB	Lophostemon confertus	no	2.64	YES	MEDIUM	-28.122893	153.353468	534714.484998179	6889133.547883950	58.722492	1.752124255
338	SS22	22	SS	Eucalyptus tindaliae/E.carnea	no	2.64	YES	MEDIUM	-28.122858	153.35343	534710.757876557	6889137.437092310	59.409348	1.752124255
339	SS23	23	SS	Eucalyptus tindaliae/E.carnea	no	2.76	YES	MEDIUM	-28.122664	153.353679	534735.281017494	6889158.852733220	57.204796	1.785143229
340	WW14	14	WW	Acacia spp	no	2	NO	NONE	-28.122674	153.353726	534739.890444456	6889157.732961140	57.164497	1.5