

A.3 Planting List

The selection of plants for the 2012 Campus Master Plan reinforces the landscape structure and hierarchy which has been established on the Sippy Downs campus since the University's inception. The native and indigenous plant list is intended to contribute to the provision of appropriate habitat for fauna on the campus, including attracting further bird life.

The plant list is predominately native and indigenous, and the selection of plants has taken into consideration the success and failures of previous plantings on the site. The drainage of the campus is poor, particularly in the areas adjacent buildings, with plants that do well on other sites near the campus failing on the University site in those areas with lower lying clay soils which become easily inundated with water. Buildings also create wind tunnels that can affect certain types of plants, particularly rainforest species. In many areas within the site the soil nutrient level is low. Because of these limitations the palette of vegetation for many areas remains limited.

Security issues and the provision of clear visibility have also been taken into consideration. For example, planting adjacent car parks and along pathways is restricted to trees and low lying vegetation.

Open Campus Green

Trees in this area are intended to reinforce the existing planting of *Corymbia tessellaris* (formerly *Eucalyptus tessellaris*). Trees are to be in loose staggered plantings, as per existing. The previously recommended species *Corymbia tessellaris* has grown tall and spindly, and tends to be damaged by strong winds. *Eucalyptus tereticornis* (Forest Red Gum) and/or *Eucalyptus racemosa* (Scribbly Gum), as available, are to be interplanted on mounds (to improve drainage) amongst the existing *Eucalyptus tessellaris* and instead of the *Corymbia tessellaris* in new areas to increase shade provision and reduce winds.

Eucalyptus tereticornis (Forest Red Gum) is a tree up 20-50m in height with an open habit, smooth grey/white bark, and creamy white flowers often used as a shade tree, and as habitat for birds and other fauna, such as koalas.

Refer Photograph A.3.1

Eucalyptus racemosa (Scribbly Gum) is a tree up to 20m with smooth white to grey bark characterised by "scribble" marks, and with white flowers that especially attract birds, gliders, and koalas.

Refer Photograph A.3.2

Both species suggested above are clay tolerant and adaptable to damp conditions, indigenous to the area, including a strong presence within the Mooloolah River National Park.

Entrance Avenue

Here, *Syncarpia glomulifera* (Turpentine Tree), a tall upright tree to 40m with brown fibrous bark and cream flowers, has been selected to reinforce the existing planting of this species. Planting is to be in loose staggered plantings, as per existing, and in loose groups behind existing *Corymbia tessellaris*. New mixed plantings of *Eucalyptus tereticornis* (Forest Red Gum) and *Eucalyptus racemosa* (Scribbly Gum) are to be interplanted on mounds to improve drainage. The Turpentine Trees act as a dark contrast to the lighter trunk and canopy of the eucalypts.

Activity Hubs

Plantings in these areas can be from a varied pallet as they are in mostly protected areas. The species selection includes more rainforest species than in the open areas.

Trees

Elaeocarpus reticulatus (Blueberry Ash) is a shrub or tree to 16m with dark to mid green glossy leaves with attractive white flowers followed by blue berries.

Refer Photograph A.3.3

Syzigium oleosum (Blue Lily Pily) is an attractive shade tree to 8m in cultivation with shiny mid-green leaves, with pink to red new growth and creamy white flowers in summer.

Syzigium luehmannii (Small Leaf Lily Pily) is an attractive shade tree growing to 6m in cultivation with shiny mid-green leaves, pink to red new growth and creamy white flowers in summer.

Lophostemon confertus (Brush Box) is a good shade tree growing to 10m in cultivation with brown scaly bark, insignificant flowers and hard woody fruit. It should be planted on mounds to avoid problems with water logging.

Refer Photograph A.3.4

Homolanthus nutans (Native poplar, Native Bleeding Heart) is a shrub to small tree growing to 6m with attractive leaves and occasional red leaf. It is very fast growing, but short lived.

Refer Photograph A.3.5

Banksia integrifolia var integrifolia (Coastal Banksia) grows to 10m in cultivation. It is a wide spreading tree with attractive leaves and honey coloured flowers.

Refer Photograph A.3.6

Archontophoenix cunninghamiana (Bangalow Palm) is an attractive palm growing to 20m, with striking orange fruit and tapered trunk. It can be transplanted as a mature specimen. There are currently good specimens on site.

Refer Photograph A.3.7

Livistonia australis (Cabbage Tree Palm) is an attractive palm growing to 25m. It can be transplanted as a mature specimen. There are currently good specimens on site. It is best planted as a mature specimen well above head height, as leaf stems have sharp spikes.

Refer Photograph A.3.8

Agathis robusta (Kauri Pine) grows 12–15m in cultivation, and is suitable for larger areas as an iconic planting, for example behind the Art Gallery. It is a tall upright native pine with attractive flaky bark and strong pointed dark green leaves.

Refer Photograph A.3.9

Shrubs

Leptospermum petersonii (Lemon Scented Tea Tree)
Callistemon (Little John)
Baeckea frutescens (Weeping Baeckea)
Austomyrtus dulcis
Rhaphis excelsa (Lady Palm)
Grevillea floribunda (Seven Dwarfs Grevillea) – on mounds
Grevillea juniperina (Juniper-leaf Grevillea) – on mounds

Strappy Plants

Cordyline australis
Crinum pedunculatum
Lomandra (Tanika)
Lomandra confertifolia
Dianella tasmanica
Dianella caerulea – non caning hybrids
Doryanthes excelsa (Gynea Lily)
Poa

Ground Covers

Hovea acutifolia
Hibbertia scandens
Scaevola (Mauve Clusters)
Gleichenia mendellii (Coral Fern)
Viola hederacea (Native Violet)

Cross Path Avenues

Distinctive shade trees are specified to reinforce pathways.

Waterbousia floribunda (Weeping Lily Pily) is a hardy tree growing to 15m in cultivation. It has pendulous dark glossy leaves with white flowers, provides deep shade and grows successfully on site.

Refer Photograph A.3.10 & A.3.11

Harpullia pendula (Tulip Wood) grows to 9m x 4m in cultivation. It is a medium size shade tree with mid green glossy leaves and pale greenish yellow fragrant flowers.

Refer Photograph A.3.12

Waterways Planting

Waterway planting is intended to reinforce the existing planting in swales of *Melaleuca leucodendron*, with under-planting of low strappy plants such as *Lomandra* (Tanika) and *Lomandra longifolia*. Planting can be in grass or among river pebbles.

Refer Photographs A.3.13 & A.3.14

Areas of more permanent water planting should be more diverse: refer to the Indigenous Plant List (Freshwater Wetlands).

Informal Parkland

Allocasuarina littoralis (Black She-Oak) grows to 10m and is a good screen tree

Allocasuarina torulosa (Forest Oak) grows to 15m with fissured cork bark. It has ornamental pendulous needle leaves and is successful as a closely planted copse.

Corymbia citriodora (Spotted Gum) is a stately tall gum to 25m, with light mottled smooth bark.

Refer Photograph A.3.15

Corymbia intermedia (Pink Bloodwood)

Eucalyptus pilularis (Blackbutt)

Eucalyptus robusta (Swamp Mahogany)

Syncarpia glomulifera – refer description above

Lophostemon conferta – refer description above

Eucalyptus grandis (Flooded Gum, Rose Gum) is a very tall gum to 45m with a lower trunk of dark bark, changing to a smooth white straight trunk.

Refer Photograph A.3.16

Car Parks

In order to achieve visual strength within the car parks, the planting should be reduced to only one or two species of clear trunked trees within each car park area, with an understorey of low shrubs and ground covers in order to maintain clear visibility. Refer list for Informal Parkland above.

Refer Photograph A.3.17

Indigenous Woodland

Planting is to be from indigenous species with a number of plant communities being reproduced in the area. These include Eucalypt Forest, Freshwater Wetland adjacent the lakes, Heath to compliment the inserted Translocation Zone, and small pockets of Rainforest adjacent the Research / Contemplation Pavilions. Plants should be sourced locally.

Indigenous List

Eucalypt Forest

Acacia falcate

Austromyrtus dulcis

Baeckea virgata

Banksia integrifolia

Corymbia citriodora

Corymbia intermedia

Corymbia racemosa

Cymbopogon refractus

Dianella caerulea

Hardenbergia violacea

Helichrysum ramosissimum

Hibbertia vestita

Hovea acutifolia

Jacksonia scoparia

Kennedia rubicunda

Leptospermum juniperinum

Lomandra longifolia

Lobelia purpurascens

Dodonaea viscosa
Elaeocarpus reticulatus
Eragrostis longata
Eucalyptus microcorys
Eucalyptus pilularis
Eucalyptus resinifera
Gompholobium virgatum
Goodenia rotundifolia

Lophostemon confertus
Melaleuca nodosa
Oxylobium robustum
Petalostigma pubescens
Pultenaea villosa
Themeda australis
Trachymene incisa
Viola hederacea

Freshwater Wetlands

(* plant in less inundated areas)

Baumea rubiginosa
Crinum pedunculatum
Callistemon pachyphyllus
Callistemon viminalis
Dianella caerulea.
Eleocharis acuta
Eucalyptus bancrofti
Eucalyptus conglomerata
Eucalyptus robusta
Gabnia sieberiana

Juncus usitatus
Lophostemon suaveolens
Lomandra longifolia
Melaleuca quinquenervia
Melaleuca thymifolia
Melastoma affine
Philydrum lanuginosum
Schoenoplectus mucronatus
*Viola hederacea**
Waterhousea floribunda

Heath

Acacia hubbardiana
Acacia suaveolens
Acacia ulicifolia
Aotus ericoides
Aotus lanigera
Austromyrtus dulcis
Banksia aemula
Banksia oblongifolia
Banksia robur
Banksia serrata
Banksia spinulosa
Blandfordia grandiflora
Callistemon pachyphyllus
Corymbia racemosa
Davidsonia ulicifolia

Dillwynia floribunda
Eragrostis elongata
Eucalyptus bancrofti
Eucalyptus conglomerata
Eucalyptus robusta
Gabnia sieberiana
Hakea actites
Leptospermum liversidgei
Leptospermum polygalifolium
Leptospermum speciosum
Leptospermum whitei
Lobelia alata
Oxylobium robustum
Petrophile shirleyae
Xanthorrhoea fulva

Rainforest

Acmena ingens
Acmena smithii
Backhousia citriodora
Cupaniopsis anacardioides
Ficus rubiginosa

Hibbertia scandens
Lomandra longifolia
Omalanthus populifolius
Podocarpus elata
Syzygium huebmannii

Planting Procurement and Maintenance

The ultimate size and horticultural performance of each plant requires careful consideration of species selection. Additionally, careful selection of nursery stock as well as the size at planting is essential to achieving quality outcomes. Where possible it is desirable for plants to be grown to consignment. This ensures that plants are at an optimum size for their containers when planted out.

The size of trees at the time of planting also needs to be carefully considered. While it is desirable for advanced specimens to be selected, this needs to be balanced with the particular soil conditions and the ability for an advanced tree to become established. In some areas where there is poor drainage, subsurface drainage is recommended. In other areas trees should be planted on low mounds in order to improve drainage.

In more informal plantings such as the loose lines of Eucalypts in the open campus green and the areas of informal parkland, plants of different sizes can be planted at the same time. Advanced specimens provide immediate visual impact while smaller plants can become established over time. This method of planting allows for failures over time, especially of the more advanced stock, without causing major visual impact.

As many species as possible should be obtained locally, with plants for the Indigenous Woodland being of local seed provenance.

Plantings should be mulched preferably with aged and composted mulch. Some locations such as the waterways could use pebble and stone mulch.

A management plan should be prepared to guide site revegetation.

The 2012 Campus Master Plan calls for a gradual increase in the area of planting as the campus expands. This needs to be matched with an appropriate level of skilled human resources and budgets. Over time, as more areas become landscaped, the level of resources will need to be re-assessed, and if necessary increased.

Systematic monitoring of ongoing plant growth, changes to site conditions, and success or failure of plantings should be conducted and fed back into future decisions.

It is most important that grounds-staff have the appropriate skills to carry out the varied requirements of successfully planting and maintaining the campus landscape. Skills in planting procedures, irrigation, fertilising, weed control, turf management and tree management, for example, are likely to be needed. At all times Environmental Protection Agency Guidelines should be followed.





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A.3.7

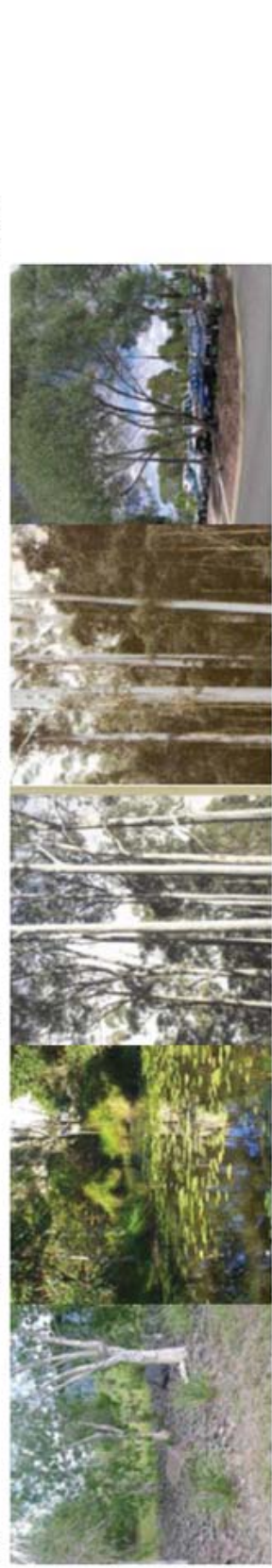
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